

See Business Flow Chart, Page 188

## ACCOUNTING (ACCTG)

### 1A - PRINCIPLES OF ACCOUNTING (4)

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisite: ACCTG 40 or 2 yrs high school accounting or equivalent.*

4 lecture hours and 1 lab hour per week.

Recording of transactions, theory of debit and credit, classification of accounts, preparation and interpretation of financial statements as applied to sole proprietorships and corporations. (CAN BUS 2) (CAN BUS SEQ A = ACCTG 1A + 1B) (CSU, UC)

### 1B - PRINCIPLES OF ACCOUNTING (4)

*Basic Skills Advisories: None.*

*Subject Prerequisite: ACCTG 1A.*

4 lecture hours and 1 lab hour per week.

A continuation of recording of transactions, theory of debit and credit, classification of accounts, preparation and interpretation of financial statements applied to sole proprietorships, partnerships, and corporations including tax considerations. (CAN BUS 4) (CAN BUS SEQ A = ACCTG 1A + 1B) (CSU, UC)

### 31 - COMPUTERIZED ACCOUNTING (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, MATH 101, and IS 15.*

*Subject Prerequisites: ACCTG 40 or 2 yrs high school accounting or equivalent.*

3 lecture hours and 1 lab hour per week.

Introduction to accounting applications software for accountants and business managers. Use of standard accounting programs, including general ledger, depreciation, accounts receivable/payable, payroll and inventory control. Survey of current accounting applications for microcomputers. (CSU)

### 40 - APPLIED ACCOUNTING (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisite/Advisories: None.*

3 lecture hours and 2 lab hours per week.

Basic accounting concepts, journals, ledgers, working papers, and financial statements. Accounting for outstanding debts, notes and interest, inventories, and payroll. (CSU)

### 44 - TAX ACCOUNTING (4) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisite/Advisories: None.*

4 lecture hours per week. (Repeats=1)

A course designed to study the federal and California state income tax laws for individuals. The application of the laws by computation of various problems and the completion of forms required. (CSU)

### 146 - INCOME TAX A SHORT COURSE (1.5)

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisite/Advisories: None.*

Short-term course: 27 lecture hours.

A short course (9 weeks) designed to assist individuals to prepare their federal 1040 and California 540 income tax forms and the associated schedules.

## AGRICULTURE (AG)

### 1 - COMPUTER APPLICATIONS IN AGRICULTURE (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours and 3 lab hours per week.

Computer application basics that relate to the management of agricultural enterprises. Emphasis will be placed on the use of the following: disk operating systems, word processing, spreadsheet, and database management programs. The use, evaluation, and selection of appropriate computer hardware and software. (CAN AG 2) (CSU, UC)

## 92 Course Descriptions - AG

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### 2 - AGRICULTURAL ECONOMICS (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites/Advisories: None.*

3 lecture hours per week.

Introduction to the dynamic economic activities and considerations facing the agricultural industry. Economic factors that affect prices, supply, demand, and allocation of farm commodities. The place of agriculture and farmers in our economic system and their relationship to the consuming public. (CSU-GE, UC)

### 3 - AGRICULTURE ACCOUNTING (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours and 3 lab hours per week.

Fundamentals of keeping various types of records for farms and agri-businesses, including: inventory depreciation, cash and accrual record keeping, tax reporting, financial statements, enterprise accounting. Includes credit and finance concepts and investment analysis. (CSU)

### 4 - FARM MANAGEMENT (3)

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites: AG 1, AG 3.*

2 lecture hours and 3 lab hours per week.

Organization and operation of farm businesses. Use of resources, planning, organizing, profit maximization, appraisal, and computer applications in making farm management decisions. (CSU)

### 5 - AG SALES AND COMMUNICATIONS (3)

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours and 3 lab hours per week.

Preparation for employment in the agricultural sales, service and communications industry requiring a combination of technical agriculture background along with sales and communication abilities. Selling agricultural products, public relations in agriculture, and agricultural journalism will be emphasized through use of written and oral presentations. (CSU)

### 6 - AGRICULTURE MARKETING (3)

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours and 3 lab hours per week.

A study of concepts and trends in agricultural marketing. Marketing principles, policies, and channels as they occur in agriculture. The effects of commodity exchanges, regulatory agencies, marketing orders, and cooperatives in the marketing of agricultural products. Successful strategies utilized by agriculture marketing agencies will be analyzed and compared as class projects. (CSU)

### 10 - SURVEY OF AGRICULTURE (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours and 3 lab hours per week.

An introduction to basic principles of the agriculture industry in California. Topic areas may include animal science, plant science, agriculture economics and management, resource management, and contemporary agricultural issues. (CSU)

### 11 - COMPUTER SOLUTIONS IN AGRICULTURE (3)

*Basic Skills Prerequisites: Completion of MATH 101 or equivalent.*

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites: Completion of AG 1 or equivalent.*

2 lecture hours and 3 lab hours per week.

An advanced computer application course focusing on solving problems in agriculture business situations. The course will teach advanced spreadsheet skills and database skills needed for decision making with computers. Use of relational and logical operators, macros, querying, sorting, joining of files, and the use of strings. Students should have a basic understanding of database and spreadsheet principles prior to enrolling in this course. (CSU)

**260 - AGRICULTURE ACHIEVEMENT I (.5) CR/NC**

*Basic Skills Advisories: None*  
*Subject Prerequisites/Advisories: None.*

1 lecture hour per week.  
 Provides students with activities which develop an understanding of American society and culture. Includes exposure to and discussion about the customs, principles, and ideals of the people of the United States with special emphasis on agricultural lifestyles.

**261 - AGRICULTURE ACHIEVEMENT II (.5) CR/NC**

*Basic Skills Advisories: None.*  
*Subject Prerequisites/Advisories: None.*

1 lecture hour per week. (Repeats=2)  
 A leadership development class that provides opportunities for student to hold an office, be a committee member, and work with others in the completion of group activities. Includes leadership training, exposure to local, county, state, and national government systems, and roles of leaders in a democratic society.

**265 - SUPERVISION IN AGRICULTURE (1) CR/NC ONLY**

*Basic Skills Advisories: None.*  
*Subject Prerequisites/Advisories: None.*

Short-term course: 16 lecture hours.  
 A course in first line supervision of agricultural employees. This course emphasizes the skills of communication, training, delegation, conflict management, discipline, and following company policies.

**AGRICULTURE AND NATURAL RESOURCES (AGNR)**

**1 - CAREER EXPLORATION (.5)**

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*  
*Subject Prerequisites/Advisories: None.*

1 lecture hour per week.  
 Development of goals and skills required to secure a job in the Agriculture and Natural Resources area including job search, filling out applications, resume development, and how to prepare for a job. (CSU)

**2 - CAREER COMMUNICATIONS (.5)**

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*  
*Subject Prerequisites/Advisories: None.*

1 lecture hour per week.  
 Introduction to the work world in the Agriculture and Natural Resources area, including interviewing, motivation, communications, leadership, and employee/employer relationships. (CSU)

**3 - CAREER LEADERSHIP (.5)**

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*  
*Subject Prerequisites/Advisories: None.*

1 lecture hour per week.  
 Introduction to the elements of leadership and supervision including time management, planning, problem solving, training, working relationships, and disciplinary action. (CSU)

**4 - CAREER SEMINAR (.5)**

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*  
*Subject Prerequisites/Advisories: None.*

1 lecture hour per week.  
 Seminar on contemporary issues of importance and significance in the Landscape, Agriculture, and Natural Resources areas. (CSU)

**10 - SHOP SKILLS (2)**

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*  
*Subject Prerequisites/Advisories: None.*

1 lecture hour and 3 lab hours per week.  
 The safe use of hand and power tools related to plumbing, woodworking, electric wiring, concrete, and metal working. Emphasis will be placed on practical application and theory. (CSU)

## 94 Course Descriptions - AGNR

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### 12 - CONSTRUCTION SKILLS (2)

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101*

*Subject Prerequisites/Advisories: None.*

1 lecture hour and 3 lab hours per week.

Basic agricultural construction skills will be acquired through completion of a class project. Skills that are developed will include the use of hand tools, surveying equipment, electrical wiring, woodworking, and concrete. Small engine use and maintenance and repair will be included. (CSU)

### 13 - MACHINERY MANAGEMENT (3)

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours and 3 lab hours per week.

Principles of machinery management, operations and maintenance including tractors, farm implements, forklifts, and harvesting equipment. (CSU)

### 41 - AGRICULTURE AMBASSADORS (2) CR/NC ONLY

*Basic Skills Advisories: Eligibility for ENGL 126.*

1 lecture and 3 lab hours. (Repeats=3)

Agriculture Leadership training through application of individual and group leadership techniques. Participation as an Agriculture Ambassador team member in college recruitment activities, including giving recruitment presentations at off campus sites, hosting prospective student groups for on-campus visitations and sponsoring recruitment activities for prospective students. (CSU)

### 48 - SKILLS (1) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

3 lab hours per week. (Repeats=3)

Development of occupational skills not normally provided for in other Agriculture and Natural Resources classes. (CSU)

### 49 - PROJECTS (1) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

3 lab hours per week. (Repeats=3)

Application of skills in the following areas: Crops, fruit production, livestock production, agricultural mechanics, farm management, landscape horticulture, natural resources. (CSU)

### 250 - CAREERS IN LAND (3) CR/NC

*Basic Skills Advisories: None.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours and 3 lab hours per week.

Exploration of careers in the Agriculture and Natural Resources area. Designed to give the student a broad overview of the respective industries and associated careers.

### 251 - SKILLS IN LAND (1) CR/NC

*Basic Skills Advisories: None*

*Subject Prerequisites/Advisories: None.*

3 lab hours per week. (Repeats=3)

Hands-on introduction of skills utilized in the following areas: crops, fruit production, livestock production, agricultural mechanics, farm management, landscape horticulture, and natural resources.

### 254 - COMPUTATIONS (3)

*Basic Skills Advisories: None*

*Subject Prerequisites/Advisories: None.*

2 lecture hours and 3 lab hours per week.

Practical mathematical calculations and computations to meet the future needs of students in the technical areas of landscape, agriculture, and natural resources. Applied problems in field mathematics. Can be used as a prerequisite for MATH 101.

## AMERICAN SIGN LANGUAGE (ASL)

### 1 - BEGINNING AMERICAN SIGN LANGUAGE (4) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

4 lecture hours per week.

Students with no prior knowledge of American Sign Language will be able to function comfortably in a variety of situations with deaf and severely hearing impaired people. They will learn of the cultural differences between deaf and hearing people and appropriate behaviors for social interaction. This course covers the first half of level one of the Learning American Sign Language Curriculum which emphasizes the functions of everyday communication and uses only the target language in class. (CSU-GE, UC)

### 2 - HIGH - BEGINNING AMERICAN SIGN LANGUAGE (4) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites: ASL 1 or equivalent college course with a "C" or better, or one year of ASL skills.*

4 lecture hours per week.

Second semester beginning American Sign Language will improve students' abilities to communicate with deaf and severely hearing impaired people in an increased variety of social situations. Students will increase their knowledge of the deaf community and its literary and artistic contributions. This course covers the second half of level one of the Learning American Sign Language Curriculum and uses only the target language in the class. (CSU-GE, UC)

### 3 - INTERMEDIATE AMERICAN SIGN LANGUAGE (4) CR/NC

*Basic Skills Advisories: None*

*Subject Prerequisites: ASL 2 with a "C" or better or equivalent.*

4 lecture hours per week.

Third semester intermediate American Sign Language will continue to expand students' abilities to communicate with deaf and severely hearing impaired people in social situations. Students will develop a formal knowledge of the grammar of American Sign Language and will enhance their familiarity with the culture of the deaf community. This course covers level 2 of the Vista-Signing Naturally curriculum. (CSU-GE, UC)

### 4 - HIGH - INTERMEDIATE AMERICAN SIGN LANGUAGE (4) CR/NC

*Basic Skills Advisories: None.*

*Subject Prerequisites: ASL 3 with a "C" or better or equivalent.*

4 lecture hours per week.

Fourth semester advanced American Sign Language will continue to expand students' abilities to communicate with deaf and severely hearing impaired people in an increasing variety of social situations. Students will increase their formal knowledge of the grammar of American Sign Language and their familiarity with the culture of the deaf community. Students will demonstrate receptive and expressive mastery of a variety of stylistic, regional, social and ethnic, and age-related variations of these vocabulary items. (CSU-GE, UC)

## ANIMAL SCIENCE (AS)

### 1 - GENERAL LIVESTOCK PRODUCTION (3)

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours and 3 lab hours per week.

An overview of the animal science industry, its trends past, present, and future. Emphasizing breeds of livestock, breeding, nutrition and physiological mechanisms including growth, reproduction, and lactation, production methods, and foods and products produced by farm animals. (CSU, UC)

### 2 - BEEF PRODUCTION (3)

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours and 3 lab hours per week.

An overview of the beef industry in the United States with emphasis on California Beef breeding, artificial insemination, market classes, feeding management and marketing of breeding cattle, feeder, and market cattle. (CAN AG 20) (CSU)

## 96 Course Descriptions - AS

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### 3 - SHEEP PRODUCTION (3)

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours and 3 lab hours per week.

An overview of the sheep industry in California and the United States. Breeds and classes of sheep with emphasis on systems of commercial and purebred sheep production. The handling of the wool clip and marketing, setting up a program of breeding, housing, feeding, marketing, and the care of ewes and lambs. (CAN AG 22) (CSU)

### 4 - SWINE PRODUCTION (3)

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours and 3 lab hours per week.

The study of the swine industry in the United States with emphasis in California. Breeds of swine, market classes and grades, carcass evaluation, types and phases of production, marketing, and management. (CAN AG 24) (CSU)

### 5 - ANIMAL NUTRITION (3)

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

3 lecture hours per week.

A study of the chemical composition, digestion, absorption, assimilation, function, and nutritive value of animal feeds. Determination of acceptable feeding standards and balanced, cost-efficient feed rations for beef, sheep, swine, and horses. (CAN AG 12) (CSU)

### 6 - LIVESTOCK SELECTION AND EVALUATION (3)

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours and 3 lab hours per week.

A detailed analysis of various visual and physical methods of appraising beef, sheep, swine, and horses as related to functional and economic value. Written and oral summaries of evaluation. (CSU)

### 10 - MEAT PROCESSING (2)

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites/Advisories: None.*

2 lecture and 3 lab hours per week.

Meat industry processing methods and operations. Practice in slaughtering, cutting beef, pork, and lamb. Meat inspection, grading, curing, preservation, and cooking. (CSU)

### 11 - SMALL MEAT ANIMAL PRODUCTION (2)

*Basic Skills Advisories: Eligibility for ENGL 126.*

*Subject Prerequisites/Advisories: None.*

1 lecture hour and 3 lab hours per week.

An overview of the production and processing steps in the small meat animal industry. Includes the study of poultry, rabbits, and goats. Emphasis will be placed on the topical areas of breeds, reproduction, nutrition, diseases, efficient production, and meat processing. (CSU)

### 12 - DAIRY FOOD PROCESSING (3)

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours and 3 lab hours per week.

Processing, storing, composition and standards in dairy food processing. Technique in process of milk, ice cream, cheeses, and other dairy products will be emphasized with practical applications in a laboratory setting. (CSU)

### 21 - EQUINE SCIENCE (3)

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours and 3 lab hours per week.

An overview of the horse industry, its trends yesterday and today. Introduction to breeds with emphasis on anatomy, feeding, selection, and management of the equine species. Learning practical skills including health care, aging by teeth, hoof trimming, and recognition of unsoundness. (CAN AG 26) (CSU, UC)

**24 - EQUITATION (2) CR/NC**

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

1 lecture hour and 3 lab hours per week. (Repeats=2)  
Fundamentals of horsemanship, equestrian theory, riding practice, equipment, terminology, basic care, safety around horses and horse hauling. Emphasis on riding skills to develop the horse and rider as a unit. (CSU)

**40 - FAIRS AND EXPOSITIONS (2)**

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

1 lecture hours and 3 lab hours per week. (Repeats=3)  
A practical field course to introduce students to the subject of fairs, sales, and expositions, their rules, regulations, judging, scoring, and entry procedures for livestock and horses. Emphasis will be placed on exhibiting, showmanship, and management of animals on display in a public setting. (CSU)

**44 - TRAIL PACKING (.5) CR/NC**

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

Short-term course: 3 lecture hours and 18 lab hours. (Repeats=1)  
A short course demonstrating the practical application of packing techniques under two days of field and trail conditions. One preparation lecture required. (CSU)

**ANTHROPOLOGY (ANTHRO)**

**1 - PHYSICAL ANTHROPOLOGY (3) CR/NC**

*Basic Skills Prerequisites/Advisories: None.*

*Subject Advisories: Completion of ENGL 125 and ENGL 126 or eligibility for ENGL 1A.*

3 lecture hours per week.  
The evolutionary biology of humankind. The history of evolutionary thought; human genetics; comparison of human to non-human life forms especially the primates; the fossil record; the role of culture in human evolution; and the concept of race. (CAN ANTH 2) (CSU-GE, UC, I)

**2 - CULTURAL ANTHROPOLOGY (3) CR/NC**

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

3 lecture hours per week.  
Principles, methods, and concepts of cultural anthropology. The relationship between culture, society, and the individual. A cross-cultural, integrated analysis of human marriage and family, child rearing, personality development, kinship, social institutions, ideology and religion, politics and social control, economics and ecological adaption, language, artistic expression and cultural change. (CAN ANTH 4) (CSU-GE, UC, I)

**3 - INTRODUCTION TO ARCHAEOLOGY AND PREHISTORY (3) CR/NC**

*Basic Skills Prerequisites/Advisories: None.*

*Subject Advisories: Completion of ENGL 125 and ENGL 126 or eligibility for ENGL 1A.*

3 lecture hours per week.  
Development of prehistoric man and the emergence and growth of human culture. (CAN ANTH 6) (CSU-GE, UC, I)

**ART (ART)**

**1 - ART BASICS: 2/3 DIMENSIONAL DESIGN (3) CR/NC**

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours and 3 lab hours per week.  
A brief history of design and an exploration of basic design concepts through two and three dimensional design problems. (CSU-GE, UC, I)

**2 - ART APPRECIATION (3) CR/NC**

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

3 lecture hours per week.  
Development of an understanding and appreciation of painting, sculpture, architecture, photography, and crafts. (CSU-GE, UC, I)

## 98 Course Descriptions - ART

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### 5 - ART HISTORY 1 (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

3 lecture hours per week.

History of the development of art styles of various periods and cultures, prehistory through gothic period.

(CAN ART 2) (ART 5 + ART 6 = CAN SEQ A) (CSU-GE, UC, I)

### 6 - ART HISTORY 2 (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

3 lecture hours per week.

History of the development of art styles of various periods and cultures: renaissance through twentieth century.

(CAN ART 4) (ART 5 + ART 6 = CAN SEQ A) (CSU-GE, UC, I)

### 6H - HONORS ART HISTORY 2 (3)

*Subject Advisories: Completion of ENGL 125 and ENGL 126 or eligibility for ENGL 1A. Enrollment in Honors Program.*

3 lecture hours per week.

The history of the culture of visual aesthetics including two and three dimensional art and architecture from the early renaissance through the end of the twentieth century. As an honors section, the class will be conducted as a seminar with an emphasis on student projects. (CSU)

### 7 - BEGINNING DRAWING (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 126.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours and 4 lab hours per week.

Foundation course in developing drawing skills. Studio practice in a variety of media. Individual approach to composition. Historical context of the drawings of various masters. (CAN ART 8) (CSU, UC)

### 9 - BEGINNING PAINTING: OIL AND ACRYLICS (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 126.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours and 4 lab hours per week. (Repeats=2)

Study of oil or acrylic painting techniques. Both historical and contemporary approaches to oil and acrylic painting. (CSU, UC)

### 9X - BEGINNING PAINTING: OIL AND ACRYLICS (2) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 126.*

*Subject Prerequisites/Advisories: None.*

1 lecture hour and 3 lab hours per week. (Repeats=2)

Study of oil or acrylic painting techniques. Both historical and contemporary approaches to oil and acrylic painting. (CSU, UC)

### 10 - BEGINNING CERAMICS (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours and 4 lab hours per week.

A concise history of ceramics. Basic studio practices in hand construction, throwing on the potter's wheel, and glazing. (CAN ART 6) (CSU-GE, UC)

### 10X - BEGINNING CERAMICS (2) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites/Advisories: None.*

1 lecture hour and 3 lab hours per week. (Repeats=2)

A concise history of ceramics. Basic studio practices in hand construction, throwing on the potter's wheel, and glazing. (CSU, UC)

### 12 - CRAFTS DESIGN (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours and 4 hours per week.

Exploration of various creative techniques in three-dimensional design through the use of various materials. The history of arts and crafts will be integrated into the class lecture. (CSU)



**13 - BEGINNING WATERCOLOR (3) CR/NC**

*Basic Skills Advisories: Eligibility for ENGL 126.*  
*Subject Prerequisites/Advisories: None.*

2 lecture hours and 4 lab hours per week.  
 Study of watercolor painting techniques, background in historical and contemporary approaches to watercolor painting. (CSU, UC)

**13X - BEGINNING WATERCOLOR (2) CR/NC**

*Basic Skills Advisories: Eligibility for ENGL 126.*  
*Subject Prerequisites/Advisories: None.*

1 lecture hour and 3 lab hours per week. (Repeats=2)  
 Study of watercolor painting techniques, background in historical and contemporary approaches to watercolor painting. (CSU, UC)

**17 - INTERMEDIATE DRAWING (3) CR/NC**

*Basic Skills Advisories: Eligibility for ENGL 126.*  
*Subject Prerequisites: ART 7.*

2 lecture hours and 4 lab hours per week. (Repeats=2)  
 Studio practice to further develop drawing skills in a variety of media and styles. Fully developed compositions in black and white and in color. Advanced individual projects allowing the student to explore a theme in depth. (CSU, UC)

**19 - INTERMEDIATE PAINTING: OIL/ACRYLIC (3) CR/NC**

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*  
*Subject Prerequisites: ART 9 or demonstration of comparable skill level to be determined by testing and/or portfolio of past oil/acrylic painting works.*

2 lecture and 4 lab hours per week. (Repeats=3)  
 An intermediate exploration of the creative act of painting using representational abstract and non-objective forms. Historical and contemporary approaches to oil and acrylic media are integrated into course content. (CSU, UC)

**20 - INTERMEDIATE CERAMICS (3) CR/NC**

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*  
*Subject Prerequisites: Art 10.*

2 lecture hours and 4 lab hours per week. (Repeats=2)  
 Construction and decorative process, wheel throwing and exploration of clay bodies, glaze calculation, and kiln firing. (CSU, UC)

**20X - INTERMEDIATE CERAMICS (2) CR/NC**

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*  
*Subject Prerequisites: Art 10 or ART 10X.*

1 lecture hour and 3 lab hours per week. (Repeats=2)  
 Construction and decorative process, wheel throwing and exploration of clay bodies, glaze calculation, and kiln firing. (CSU, UC)

**23 - INTERMEDIATE WATERCOLOR PAINTING (3) CR/NC**

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*  
*Subject Advisories: ART 13 or demonstration of comparable skill level to be determined by testing and/or portfolio of past watercolor painting work.*

2 lecture and 4 lab hours per week. (Repeats=3)  
 An intermediate exploration of the creative act of watercolor painting using representational, abstract, and non-objective forms. Historical and contemporary approaches to watercolor media are integrated into course content. (CSU, UC)

**30A - COMPUTER DRAWING AND DESIGN I (3) CR/NC**

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101. Subject Prerequisites/Advisories: None.*

2 lecture and 4 lab hours per week. (Repeats=3)  
 Basic techniques in digital drawing on the computer. Digital drawing software is introduced within an art historical context, incorporating the visual elements and principles of design in fine and commercial art applications. (CSU)

**30B - INTERMEDIATE COMPUTERIZED DRAWING (3) CR/NC**

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, MATH 101*

2 lecture and 4 lab hours per week. (Repeats=3)  
 Intermediate level computerized drawing course utilizing digital drawing software such as Illustrator addressing issues of form and content for web and print media in commercial and fine art applications. (CSU)

# 100 Course Descriptions - ART

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## 37A - COMPUTERIZED VISUAL ART (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL126, and MATH 101.*

*Subject Prerequisites: None*

2 lecture and 4 lab hours per week. (Repeats=3)

This course explores the use of the computer in the visual arts. Issues of form (visual elements/principles of design) and content are integrated with technological instruction in the formation of computer art images. A digital imaging software program, such as Photoshop, will be introduced along with techniques necessary for image adjusting, digital photography, scanning and printing. The images students generate are created with an understanding of the relationship between the traditional interpretation of art and the changing applications of technology. Art historical images from the early twentieth century are studied. (CSU)

## 37B - INTERMEDIATE COMPUTER VISUAL ART

*Basic Skills Advisories: Eligibility for English 125, English 126 and Math 101.*

*Subject Prerequisites: ART 37A.*

2 lecture and 4 lab hours per week. (Repeats=3)

Intermediate level computerized visual art course utilizing digital imaging software (Photoshop) addressing issues of form and content for web and print media in commercial and fine art applications. (CSU)

## 38 - COMPUTER DIGITAL IMAGING (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites: None.*

2 lecture and 4 lab hours per week. (Repeats=3)

This course is an exploration of techniques in digital painting on the computer and includes instruction in scanning and printing. A digital imaging software program, such as Painter, will be introduced. The formation of digital art is taught within the context of art history and includes the application of the visual elements and principles of design. Art historical images from the late twentieth century are studied. (CSU)

## 39 - GRAPHIC DESIGN I (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites: Art 38.*

2 lecture hours and 4 lab hours per week.

Principles and methods of graphic communication. Projects incorporate symbols and typography into visual design, exploring interrelationships between the formal elements and symbolic content. (CSU)

## 40 - GRAPHIC DESIGN II (3) CR/NC

*Basic Skills Advisories: None.*

*Subject Prerequisites: Art 39.*

2 lecture hours and 4 lab hours per week.

Advanced principles and methods of graphic communication. Projects incorporate symbols and typography into visual design, exploring interrelationships between the formal elements and symbolic content. (CSU)

## 41 - COMPUTERIZED MULTIMEDIA (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites: ART 37A or ART 38.*

2 lecture and 4 lab hours per week. (Repeats=3)

An introduction to computer multimedia for graphic design and the visual arts. The course will introduce a multimedia authoring program used for creating interactive media. (CSU)

## 42 - COMPUTER ANIMATION/3D (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites: ART 37A or ART 38.*

2 lecture and 4 lab hours per week. (Repeats=3)

An introduction to animation and modeling on the computer. This course will introduce a 3D software imaging program used for creating individual student 3D animation projects. (CSU)

# Course Descriptions - ART 101

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## 43 - ADVANCED PROJECTS STUDIO (2-3) CR/NC

*Basic Skills Advisories: Same as entry level subject class.*

*Subject Prerequisites: Entry level subject class.*

1 lecture hour and 3 lab hours per week for 2 units.

2 lecture hours and 4 lab hours per week for 3 units.

(Repeats=3)

Advanced individual work under supervision of instructor in a specialized area. May include lettering, commercial art, craft design, jewelry, ceramics, sculpture, print making, painting or photography. During the first week of the semester, student enrolling must present an appropriate project(s) based upon skills learned in other art courses.

(CSU, UC)

## 44 - DIGITAL VIDEO EDITING (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125,*

*ENGL 126 and MATH 101.*

2 lecture and 3 lab hours per week. (Repeats=3)

A basic introduction to digital video editing on the computer.

(CSU)

## 47 - LETTERING (CALLIGRAPHY) (2) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125,*

*ENGL 126, and MATH 101.*

*Subject Prerequisites/Advisories: None.*

1 lecture hour and 3 lab hours per week.

Exploration of principles and production in various ways of hand lettering. (CSU)

## 130A - COMPUTER DRAWING AND DESIGN I (1.5) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125,*

*ENGL 126, and MATH 101.*

1 lecture and 2 lab hours per week. (Repeats=3)

ART 130A is a concise introduction to basic techniques in vector-based digital drawing on the computer. Digital drawing software is introduced incorporating the visual elements and principles of design in fine and commercial art applications.

## 137A - COMPUTERIZED VISUAL ART (PHOTO) (1.5) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

1 lecture and 2 lab hours per week. (Repeats=3)

Art 137A is a concise introduction to techniques in digital photo manipulation. Basic issues of form (visual elements/principles of design) and content are integrated with technical instruction in the formation of computer pixel-based digital photo images. A photo digital imaging software program is introduced along with elementary techniques necessary for digital photography, image compositing, scanning and printing.

## 138 - COMPUTER DIGITAL IMAGING (PAINTING) (1.5) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

1 lecture and 2 lab hours per week. (Repeats=3)

Art 138 is a concise introduction to techniques in digital painting. Basic issues of form (visual elements/principles of design) and content are integrated with technical instruction in the formation of digital pixel-based painted images. A digital painting software program is introduced along with elementary techniques necessary for digital painting, scanning and printing.

## 141 - COMPUTERIZED MULTIMEDIA (1.5) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126 and MATH 101.*

*Subject Prerequisites: ART 30A or ART 37A or ART 38 or ART 130A or ART 137A or ART 138.*

1 lecture and 2 lab hours per week. (Repeats=3)

A concise introduction to computer multimedia for graphic design and the visual arts. The course will introduce a multimedia authoring program used for creating interactive media.

# 102 Course Descriptions - ART

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## 142 - COMPUTER ANIMATION /3D (1.5) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites: ART 30A or ART 130A or ART 37A or ART 137A or ART 38 or ART 138.*

1 lecture and 2 lab hours per week. (Repeats=3)

An introduction to animation and modeling on the computer. This course will introduce a 3D software imaging program used for creating individual student 3D animation projects. ART 42X is a basic introduction to animation and modeling on the computer. This course will introduce a 3D software imaging program used for creating individual student 3D animation projects.

## 144 - DIGITAL VIDEO EDITING (1.5) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126 and MATH 101.*

1 lecture and 2 lab hours per week. (Repeats=3)

A basic introduction to digital video editing on the computer.

## AUTOMOTIVE TECHNOLOGY (AUTOT)

### 9 - AUTOMOTIVE ESSENTIALS (3)

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

3 lecture hours per week.

An overview of the automobile and its basic components. General servicing procedures and basic troubleshooting are included for anyone needing an introduction to the operating principles of the automobile. (CSU)

### AUTOMOTIVE TECHNICIAN PROGRAM

The Reedley College Automotive Technician AS Degree Program will provide the student with the knowledge and skills to perform diagnosis and repair of various automotive components and enter the automotive service industry at the advanced apprentice level. Subjects include: Brakes, Suspension, Electrical Systems, Engine repair, Engine Performance, Air Conditioning, Manual Trans/Axles, Automatic Transmissions, and BAR Unlimited (EU), Brake and Lamp Licenses.

Upon completion of the program, the student should qualify for the California State Emission, Brake, Lamp license exams, and the National Institute for Automotive Excellence (ASE)

exams and qualify as a Certified General Automobile Mechanic once the ASE experience requirements are met.

The program is certified by the National Automotive Technicians Education Foundation (NATEF), and is certified by the State of California Bureau of Automotive Repair. The student will receive approximately 1100 hours of instruction, at 30 hours per week, in a one-year, fall/spring semester sequence. All tools and equipment are provided; however, the student is expected to furnish text books, personal safety items, and a laundry service fee. Students are expected to register for the ASE and BAR exams.

AUTO T-10 (fall), AUTO T-11 (spring), provides college degree credit and a certificate of achievement for the student who can meet college level literacy qualifications.

### 10 - AUTOMOTIVE ESSENTIALS (16)

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites/Advisories: None.*

9 lecture hours and 21 lab hours per week.

Safety, ethics, regulations, engine repair, manual trans/axle, automatic transmission, chassis electrical systems. (CSU)

### 11 - AUTOMOTIVE ESSENTIALS (16)

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites/Advisories: None.*

9 lecture hours and 21 lab hours per week.

Engine performance and emissions, engine electrical and electronics, brake systems, suspension and steering, air conditioning and heating, safety, ethics, and regulations. (CSU)

## AVIATION MAINTENANCE TECHNOLOGY (AERO)

### 11 - AVIATION MAINTENANCE TECHNOLOGY (8.5)

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Advisories: "C" grade or better in previous AERO courses completed.*

Short-term course: 135 lecture hours and 135 lab hours.

Skills and knowledge appropriate to F.A.A. Regulation Part 147, to include: ground operations, basic assembly and rigging, landing gear systems, position and warning systems,

fluid lines and fittings, basic turbine engines, and weight and balance. Also included is an introduction to the IBM PC and compatible computers. Computer subjects include storage devices, printer controls, essential MS-DOS commands, word processing, and computer based training (CBT) applications. (CSU)

## 12 - AVIATION MAINTENANCE TECHNOLOGY (9)

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Advisories: "C" grade or better in previous AERO courses completed.*

Short-term course: 135 lecture hours and 135 lab hours. Skills and knowledge appropriate to F.A.A. Regulation Part 147, to include: materials and processes, basic sheet metal repair, basic reciprocating engine overhaul, engine cooling systems, engine induction systems, and engine exhaust systems. (CSU)

## 13 - AVIATION MAINTENANCE TECHNOLOGY (8.5)

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Advisories: "C" grade or better in previous AERO courses completed.*

Short-term course: 135 lecture hours and 135 lab hours. Skills and knowledge appropriate to F.A.A. Regulation Part 147, to include: basic electricity, basic aircraft electrical systems, basic engine electrical systems, basic physics, maintenance publications, maintenance forms and records, and mechanic privileges and limitations. (CSU)

## 14 - AVIATION MAINTENANCE TECHNOLOGY (9)

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Advisories: "C" grade or better in previous AERO courses completed.*

Short-term course: 135 lecture hours and 135 lab hours. Skills and knowledge appropriate to F.A.A. Regulation Part 147, to include: cleaning and corrosion control, wood structures, aircraft covering, aircraft finishes, basic composite structures, basic math, ignition systems, and aircraft drawings. (CSU)

## 21 - AVIATION MAINTENANCE TECHNOLOGY (8.5)

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites: AERO 11, 12, 13, and 14.  
Subject Advisories: "C" grade or better in previous AERO courses completed.*

Short-term course: 135 lecture hours and 135 lab hours. Skills and knowledge appropriate to FAA Regulation Part 147 to include: engine fire protection systems, airframe fire protection systems, engine instrument systems, ice and rain control systems, cabin atmosphere controls system, advanced reciprocating engine overhaul, and welding. (CSU)

## 22 - AVIATION MAINTENANCE TECHNOLOGY (9)

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites: AERO 11, 12, 13, and 14.  
Subject Advisories: "C" grade or better in previous AERO courses completed.*

Short-term course: 135 lecture hours and 135 lab hours. Skills and knowledge appropriate to F.A.A. Regulation Part 147, to include: engine fire protection system, airframe fire protection system, engine instrument system, ice and rain control systems, cabin atmospheric control system, advanced reciprocating engine overhaul, and welding. (CSU)

## 23 - AVIATION MAINTENANCE TECHNOLOGY (8.5)

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites: AERO 11, 12, 13, and 14.  
Subject Advisories: "C" grade or better in previous AERO courses completed.*

Short-term course: 135 lecture hours and 135 lab hours. Skills and knowledge appropriate to FAA Regulation Part 147 to include: advanced assembly and rigging, advanced airframe inspection, advanced engine inspection, reciprocating engine lubrication systems, reciprocating engine driven propellers, fuel metering systems, reciprocating engine fuel systems, and reciprocating engine inspection. (CSU)

# 104 Course Descriptions - AERO

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## 24 - AVIATION MAINTENANCE TECHNOLOGY (9)

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites: AERO 11, 12, 13, and 14.*

*Subject Advisories: "C" grade or better in previous AERO courses completed.*

Short-term course: 135 lecture hours and 135 lab hours. Skills and knowledge appropriate to F.A.A. Regulation Part 147, to include: aircraft instrument systems, communication and navigation systems, advanced aircraft electrical systems, advanced engine electrical systems, hydraulic and pneumatic power systems, auxiliary power systems, and aircraft fuel systems. (CSU)

## GROUND AND FLIGHT COURSES (FLIGHT)

### 151 - PRIVATE PILOT GROUND SCHOOL (3)

*Basic Skills Advisories: None.*

*Subject Prerequisites/Advisories: None.*

3 lecture hours per week. Offered subject to demand. Principles of flight and aerodynamics; aircraft controls; engine systems; basic weather and weather service for pilots, navigation by reference to charts; use of omni-radio as an aid to navigation; radio communications; Federal Air Regulations (FAR's) applicable to visual flight conditions.

## AEROSPACE STUDIES (ASP)

The Aerospace courses listed below are offered at California State University, Fresno, but credit is applicable at Reedley College toward the Associate Degree.

### 1AB - THE FOUNDATION OF THE U.S. AIR FORCE (1-1) (CSUF COURSE)

An introductory course about the Air Force and ROTC. It will give you an overview of the mission and organization of the Air Force, officership and professionalism, military customs and courtesies, officer opportunities, and introduction to communication skills.

### 2AB - THE EVOLUTION OF USAF AIR AND SPACE POWER (1-1) (CSUF COURSE)

Designed to examine general aspects of air and space power through a historical perspective. The course covers from the first balloon flight to the space-age global positioning systems of the Gulf War.

### 3 - LEADERSHIP LABORATORY (1-4) (CSUF COURSE)

Must be taken each semester of the General Military Course (GMC). Cadets experiment with and develop their military and leadership skills and techniques.

## BIOLOGY (BIOL)

### 1 - PRINCIPLES OF BIOLOGY (4) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101*

*Subject Prerequisites: None*

*Subject Advisories: High School Chemistry and/or High School Biology*

3 lecture hours and 2 lab hours per week. Recommended for pre-professional and life science majors. Fulfills prerequisite for Biology 20 (recommended for Biology 4, 6). Topics covered include the cellular and chemical basis of life, organ-systems, genetics, evolution and the origin of life, ecology, and environmental concerns. (CAN BIOL 2) (CSU-GE, UC, I)

### 2 - ENVIRONMENTAL SCIENCE (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites/Advisories: High School Chemistry or High School Biology.*

2 lecture and 3 lab hours per week.

The course is recommended for life-science and environmental science majors. This introductory course examines the earth as an ecosystem composed of biological, chemical, and physical processes, with emphasis on human impact on the planet. Topics include the structure and function of ecological systems, biodiversity, populations, resources, pollution, pests/pesticide problems, risk benefit assessment, and environmental laws. A minimum of two field trips are required. (CSU, UC)

## 4 - PRINCIPLES OF ZOOLOGY (5) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites: CHEM 1A or CHEM 3A*

*Subject Advisories: BIOL 1 recommended.*

3 lecture hours and 6 lab hours per week.

A course providing a basic understanding and working knowledge of animals studied at several levels (biochemical, cellular, organ, system); introduction to the diversity of animal life, theories of the origin of life and evolution, principles of development and inheritance, introduction to comparative anatomy and physiology of animal systems. (CAN BIOL 4) (CSU-GE, UC, I)

## 4A - PLANT BIOLOGY (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours and 3 lab hours per week.

A course with laboratory designed for non-science majors which provides a basic understanding and working knowledge of plants studied at several levels (biochemical, cellular, organ, system); introduction to the diversity of plant life, theories of the origin of life and evolution, principles of development, inheritance and ecology. (CSU-GE, UC, I)

## 4B - ANIMAL BIOLOGY (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours and 3 lab hours per week.

A course with laboratory designed for non-science majors which provides a basic understanding and working knowledge of animals studied at several levels (biochemical, cellular, organ, system); introduction to the diversity of animal life, theories of the origin of life and evolution, principles of development, inheritance and ecology. (CSU-GE, UC, I)

## 6 - PRINCIPLES OF BOTANY (5) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites: CHEM 1A or CHEM 3A*

*Subject Advisories: BIOL 1 and BIOL 4 recommended.*

3 lecture hours and 6 lab hours per week.

Offered subject to demand. A course providing a basic understanding and working knowledge of plants studied at several levels (biochemical, cellular, organ, system); introduction to the diversity of plant life, theories of the origin of life and evolution, principles of development, inheritance and ecology. (CAN BIOL 6) (CSU-GE, UC, I)

## 20 - HUMAN ANATOMY (4) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites: BIOL 1.*

3 lecture hours and 3 lab hours per week.

A course providing a basic understanding and working knowledge of the human body with emphasis on the structure of each major system. The interrelationship between human systems and the relationship between structure and function of each system will be studied at several levels (cell, tissue, and organ levels). (CAN BIOL 10) (CAN BIOL SEQ B = BIOL 20 + BIOL 22) (CSU-GE, UC, I)

## 22 - HUMAN PHYSIOLOGY (5) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites: BIOL 20 and CHEM (High School, CHEM 10, CHEM 3A or CHEM 1A).*

4 lecture hours and 3 lab hours per week.

A course providing a basic understanding and working knowledge of the human body with emphasis on the functions of each major system. The interrelationship between human systems and the relationship between structure and function of each system will be studied at several levels (biochemical, cellular, organ levels). (CAN BIOL 2) (CAN BIOL SEQ B = BIOL 20 + 22) (CSU-GE, UC, I)

# 106 Course Descriptions - BIOL

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## 31 - MICROBIOLOGY (4) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites: BIOL 1 and CHEM (High School, CHEM 10, CHEM 3A or CHEM 1A).*

*Subject Advisories: None.*

2 lecture hours and 6 lab hours per week.

A course providing an introduction to the structure, metabolism and ecology of microorganisms with special emphasis on microbe-related human diseases. This course is designed to introduce the student to a variety of topics in the area of microbiology. The text, lab manuals, and lectures are geared to students in biological, medical, physical education and health-oriented programs. (CAN BIOL 14) (CSU-GE, UC, I)

## BUSINESS ADMINISTRATION (BA)

*See Business Flow Chart, Page 188*

## 5 - BUSINESS COMMUNICATIONS (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites: Beginning typing/keyboarding strongly recommended.*

3 lecture hours per week. (Usually offered spring semester.) Composing and preparing business letters, reports, memos, and oral communications with emphasis on organization, correct grammar, conciseness, and tone. (CSU)

## 10 - INTRODUCTION TO BUSINESS (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites/Advisories: None.*

3 lecture hours per week.

A survey of the basic business areas: economic systems, management, marketing, finance, operations, human resources, law, entrepreneurship, and international business. (CSU, UC)

## 12 - INTRODUCTION TO HOSPITALITY (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites/Advisories: None.*

3 lecture hours per week.

This course provides an introduction to many facets of the hospitality industry including lodging, food service, travel and tourism. The history, growth and development, current trends and organizational structure of the industry are explored with a focus on employment opportunities. (CSU)

## 15 - INTRODUCTION TO MANAGEMENT (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites: None.*

3 lecture hours per week.

Focus is on first level supervision. Areas of emphasis are planning, organizing, staffing, directing, and controlling. (CSU)

## 18 - BUSINESS AND THE LEGAL ENVIRONMENT (4) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

4 lecture hours per week.

The business law course will cover the following topical areas: sources of law, ethics in law, criminal law, tort law, contract law, agency, business structures, and international law with the major emphasis on contracts. The course will require case study discussions and written briefs. (CAN BUS 8) (CSU, UC)

## 27 - STUDENTS IN FREE ENTERPRISE (2)

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites: None.*

2 lecture hours per week. (Repeats=3)

Business leadership training and experience using the student leadership organization, Students in Free Enterprise, which is affiliated with the international organization, Students in Free Enterprise, Inc. Participation on college sponsored teams to compete against students from other colleges while acquiring knowledge and skills regarding teaching, service, leadership, organization, networking, and communication as it relates to the community. (CSU)



## 33 - HUMAN RELATIONS IN BUSINESS (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

3 lecture hours per week.

Emphasis on motivating, communicating, counseling, training, managing time, evaluating performance, and understanding the worker. (CSU)

## 34 - FUNDAMENTALS OF INVESTING (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites/Advisories: None.*

3 lecture hours per week.

Understanding and evaluating stocks, bonds, mutual funds, real estate, insurance, collectibles= items, commodities, and other alternatives as investment and retirement planning instruments. Personal portfolio management, retirement plans, lump-sum distributions, and related strategies for investing and retirement planning will be explored. (CSU)

## 38 - OPERATION OF THE SMALL BUSINESS (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 101.*

*Subject Prerequisites/Advisories: None.*

3 lecture hours per week.

A systematic approach to developing and managing a small business. Emphasis on discussions, case studies, and practical exercises to develop expertise in the operations, marketing, human resource utilization, and financing of the small business venture. (CSU)

## 39 - FINITE MATHEMATICS (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 126.*

*Subject Prerequisites: Two years of high school algebra, to include Algebra 2 or equivalent (MATH 103). May be taken concurrently with STAT 7.*

3 lecture hours per week.

An introduction to finite mathematics and quantitative methods for business majors. May be taken concurrently with STAT 7. Topics include the application of sets, counting, probability, expected value, rates of change, functions:

applications and graphing, mathematics of finance, systems of equations and matrices, and linear programming. (CSU-GE, UC)

Meets business major requirements for students transferring to Cal State University, Fresno.

## 46 - CALCULATOR APPLICATIONS (1) CR/NC ONLY

*Basic Skills Advisories: Eligibility for ENGL 126 and MATH 101.*

Short-term course: 9 lecture and 18 lab hours.

This is a hands-on course designed to teach the student the proper use of the ten-key calculator when solving a variety of business, accounting and everyday application problems. Speed, accuracy, and calculator functionality are emphasized. (CSU)

## 47 - CAREERS-BUSINESS (1) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

Short-term course: 18 lecture hours.

A course to prepare students for the career work force. Career and education planning, self-assessment, resume writing, cover letter writing, job applications, and interviewing. (CSU)

## 101 - BUSINESS BASICS (1) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

Short-term course: 18 lecture hours.

This is a survey course that will introduce basic business principles to those students participating in short-term education or training programs, specifically those in the CalWORKs program. Students will briefly be exposed to various business areas such as business ethics, business in society, employee relations, and other related topics.

Note: Students who have previously taken BA 10, BA 33, or BA 38 may not receive credit for this course.

# 108 Course Descriptions - BA

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## 103 - CUSTOMER SERVICE IN BUSINESS (1.5) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

Short-term course: 27 lecture hours.

This course will introduce basic customer service principles and practices, specifically to those students in the CalWORKs program, the General Business Retailing Option, and those individuals in business and industry desiring such training. Students will be exposed to customer service attitudes, turnoffs, dealing with the dissatisfied customer, exceeding customer expectations, behaviors that win customer loyalty, getting others to give great service, achieving phone and internet responsiveness, sharing information with customers orally and via written documents, and understanding one-to-one customer service.

## 260 - TOPICS IN BUSINESS (.5) CR/NC

*Basic Skills Advisories: None.*

Short-term course: 9 lecture hours.

Examination and contemporary overview of current business topics. Students taking this course will learn a variety of business skills such as being able to discuss the historical development of the topic area, the selection of methods to appropriately handle certain business situations, and the evaluation of alternative solutions to contemporary business problems. Sample topics include Business Ethics, Conflict and Stress Management, Insurance Essentials, Small Business Budgeting, etc.

## CHEMISTRY (CHEM)

### 1A - GENERAL CHEMISTRY (5) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Advisories: MATH 20, previously or concurrently.*

*Subject Prerequisites: CHEM 10 or HS Chemistry.*

3 lecture hours and 6 lab hours per week.

Basic concepts; atoms, molecules, and ions; formulas and equations; gas laws; electronic structure of atoms; bonding; atomic orbital and molecular orbital theories; solutions; redox reactions; introduction to acids and bases; survey of radioactivity. (CAN CHEM 2) (CHEM 1A + CHEM 1B = CAN CHEM SEQ A) (CSU-GE, UC, I)

### 1B - GENERAL CHEMISTRY AND QUALITATIVE ANALYSIS (5) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites: CHEM 1A with a "C" or better.*

3 lecture hours and 6 lab hours per week.

Homogeneous, heterogeneous, and ionic equilibria; chemical thermodynamics and kinetics; oxidation-reduction and coordination, and nuclear chemistry; inorganic qualitative and quantitative analysis. (CAN CHEM4) (CHEM 1A + CHEM 1B = CAN CHEM SEQ A) (CSU-GE, UC, I)

### 3A - INTRODUCTORY GENERAL CHEMISTRY (4) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites: MATH 20 or equivalent previously or concurrently.*

*Subject Advisories: Eligibility for MATH 103, high school chemistry or CHEM 10.*

3 lecture hours and 3 lab hours per week.

Composition of matter, physical and chemical changes, atomic and molecular structure, inorganic nomenclature, chemical formula and reaction calculations, gas laws, bonding in liquids and solids, solutions, net ionic equations, acid-base theories, pH, oxidation-reduction reactions, kinetics and equilibrium. (CSU-GE, UC, I)

### 3B - INTRODUCTORY ORGANIC AND BIOLOGICAL CHEMISTRY (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites: CHEM 3A, CHEM 1A, or equivalent.*

*Subject Advisories: Eligibility for MATH 103.*

2 lecture hours and 3 lab hours per week.

Introduction to the basic concepts of organic and biological chemistry. Structure and behavior of organic biochemical compounds, metabolism, and regulation. (CSU-GE, UC)

## 8 - ELEMENTARY ORGANIC CHEMISTRY (3.0) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 103.*

*Subject Prerequisites: CHEM 1A or CHEM 3A*

3 hours lecture per week.

A survey of the important classes of organic compounds with emphasis upon materials of interest to students of the biological sciences. This corresponds to Chemistry 8 as offered at California State University, Fresno. (CSU, UC)

## 9 - ELEMENTARY ORGANIC CHEMISTRY LABORATORY II (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126, and MATH 103.*

*Subject Prerequisites: CHEM 8 or equivalent, previously or concurrently.*

1 lecture hour and 6 lab hours per week.

Physical properties and chemical reactions of the common classes of organic compounds. This course is designed to accompany an organic chemistry lecture course such as CHEM 8. (CSU, UC)

## 10 - ELEMENTARY CHEMISTRY (4) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites: MATH 20 or equivalent previously or concurrently.*

*Subject Corequisites: Eligibility for MATH 103.*

3 lecture hours and 3 lab hours per week.

Basic principles of chemistry, with emphasis on the quantitative concepts. Recommended for students planning to take CHEM 1A who do not have a strong background in high school chemistry. (CSU-GE, UC, I)

## 28A - 28B - ORGANIC CHEMISTRY (3-3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites: CHEM 28A: CHEM 1B. CHEM 28B: CHEM 28A.*

3 lecture hours per week.

Introductory survey of the reactions of principal functional groups. A thorough study of the reactions of aliphatic and aromatic compounds of carbon with emphasis on theory and mechanism. (CSU-GE, UC, I)

## 29A - 29B - ORGANIC CHEMISTRY LABORATORY (2-2) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Corequisites: CHEM 29A: CHEM 28A. CHEM 29B: CHEM 28A.*

6 lab hours per week.

A study of the properties and reactions of organic compounds and synthesis of representative compounds. An introduction to qualitative organic analysis is included. Students who have completed CHEM 9 will receive no credit for CHEM 29A. (CSU-GE, UC, I)

## CHILD DEVELOPMENT (CHDEV)

### 6 - INFANT-CHILD HEALTH AND SAFETY (2) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours per week.

A survey of current concepts in the fields of health and safety and their relationship to the young child. Methods of assisting the child to develop good health habits and attitudes will be emphasized. (CSU)

### 7 - INFANT-TODDLER DEVELOPMENT AND CARE (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours and 3 lab hours per week.

An introduction to the principles and techniques of infant-toddler programming and the development of related curriculum. Characteristics and needs of the young child in a group-care setting will be examined. (CSU)

### 8A - PROGRAMS FOR SCHOOL-AGE CHILD CARE (3)

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

2 lecture and 3 lab hours per week.

A study of school-age child-care: options, staff training, and activity planning. The growth and development of children 5 to 12, and the effects of the environment will be examined. (CSU)

# 110 Course Descriptions - CHDEV

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## 8B - PROGRAMS FOR SCHOOL-AGE CHILD CARE (3)

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

2 lecture and 3 lab hours per week.

Quality child care, licensing requirements, and program options in the community are examined. Activities, materials, and interaction appropriate for the child 5 to 12 years in a group-care setting. Program planning, curriculum and environmental design. (CSU)

## 12 - CHILD ABUSE (2) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours per week.

Issues related to abuse, battered, and neglected children. Profile of abusers. Reporting and professional responsibilities. Identification, prevention and treatment of abused children and of abusers. (CSU)

## 19V - CHILD DEVELOPMENT COOPERATIVE WORK EXPERIENCE (1-4) CR/NC

*Basic Skills Advisories: None.*

*Subject Prerequisites: Must be enrolled in minimum of 7 units, including occupational work experience class, have a job directly related to the work experience class, and either be majoring in the field or be enrolled in a course directly related to the job.*

75 paid or 60 unpaid lab hours. (Repeats=3)

Supervised employment in a child care or educational facility. Maximum of 4 units per semester, 16 units total. Requires concurrent class enrollment. (CSU)

## 30 - CHILD, FAMILY AND COMMUNITY (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

3 lecture hours per week.

Relationships between the child, the family, the school, and the community, and their influences on the social-emotional development of the child through early school-age. (CSU, UC)

## 32 - EARLY INTERVENTION (2) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours per week.

An introduction to the study of Early Childhood-Special Education and the rationale for early intervention for infants and preschoolers with handicapping conditions. Innovative approaches in programming will be examined. (CSU)

## 33 - CREATIVE ACTIVITIES FOR CHILDREN (2) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours per week.

An introduction to creative expression in the Early Childhood Education curriculum. Integration of activities into a thematic format will be emphasized. (CSU)

## 35 - EXCEPTIONAL CHILDREN (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

3 lecture hours per week.

An introduction to the field of special education. Treatment of the handicapped child, effects on the family, and careers in special education. (CSU)

## 36 - CULTURAL STUDIES FOR CHILDREN (2) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours per week.

Cultural aspects of child-rearing attitudes and practices observed among ethnic and racial groups of the world. Methods of conveying culture to the young child will be explored. (CSU)

## **37A - EARLY CHILDHOOD PROGRAMS AND PRACTICES (3) CR/NC**

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours and 4 lab hours per week.

A study of the concepts and principles of early childhood education. The application of theory and teaching techniques within a preschool learning environment are emphasized. (CSU)

## **37B - EARLY CHILDHOOD PROGRAMS AND PRACTICES (3) CR/NC**

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours and 4 lab hours per week.

A continuation of the study of the concepts and principles of early childhood education. The application of theory and teaching techniques within a preschool learning environment are emphasized. (CSU)

## **39 - CHILD DEVELOPMENT (3) CR/NC**

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

3 lecture hours per week.

Current concepts and principles of child development. Biological and environmental influences on the child's growth and development from conception through early school-age. Twelve hours of observation required. (CSU, UC)

## **40A - ADMINISTRATION OF EARLY CHILDHOOD PROGRAMS (3) CR/NC**

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

3 lecture hours per week.

A study of state licensing procedures, rules, and regulations governing a variety of early childhood programs with an emphasis on methods of organization and operation. (CSU)

## **40B - ADVANCED ADMINISTRATION OF EARLY CHILDHOOD PROGRAMS (3) CR/NC**

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

3 lecture hours per week.

A variety of exemplary early childhood programs, philosophies and goals are compared. Planning and preparation of curriculum suitable for the young child is given special consideration. (CSU)

## **41 - MATERIALS AND EQUIPMENT FOR CHILDREN (2) CR/NC**

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours per week.

Development and use of didactic materials and equipment to promote learning in the young child. Emphasis will be placed on economy in the production of these materials. (This course is designed for the Child Development Option II Certificate.) (CSU)

## **45 - SUPERVISION OF ADULTS IN ECE CLASSROOMS (2)**

*Basic Skills Prerequisites: Completion of 24 units of ECE/CHDEV.*

*Subject Prerequisites/Advisories: None.*

Short-term course: 32 lecture hours and 9 lab hours.

A study of the methods and principles of supervising student teachers, assistant teachers, parents, and volunteers in early childhood/child development classrooms. Emphasis is on the role of classroom teachers who function as mentors to new teachers while simultaneously addressing the needs of children, parents, and other staff. (CSU)

## **49 - BEHAVIOR MANAGEMENT IN THE CLASSROOM (2) CR/NC**

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours per week.

A study of theory and methods of direct and indirect guidance, setting limits, and the use of positive reinforcement to improve student behavior and academic performance. (CSU)

# 112 Course Descriptions - CHDEV

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## 102 - INTRODUCTION TO EARLY CHILDHOOD EDUCATION (2) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites/Advisories: None.*

2 lecture hours per week.

A survey of the nature and scope of the early childhood profession and options available for job opportunities working with young children.

## 265A - TOPICS IN CHILD DEVELOPMENT: CURRICULUM (1-3) CR/NC

*Basic Skills Advisories: None.*

*Subject Prerequisites/Advisories: None*

1-3 lecture hours per week. (Repeats=3 times)

Examination of new topics and trends in curriculum for early childhood programs.

## 265B - TOPICS IN CHILD DEVELOPMENT: FAMILY AND COMMUNITY (1-3) CR/NC

*Basic Skills Advisories: None.*

*Subject Prerequisites/Advisories: None.*

1-3 lecture hours per week. (Repeats=3)

Examination of contemporary trends and issues in family life that affect home-school-community relations.

## 265C - TOPICS IN CHILD DEVELOPMENT: ADMINISTRATION (1-3) CR/NC

*Basic Skills Advisories: None*

1-3 lecture hours per week. (Repeats=3)

Current issues in early childhood and school-age program administration and supervision.

## 265D - INTRODUCTION TO EARLY CHILDHOOD MENTORING (.5)

Short-term course: 9 lecture hours.

Mentor seminar provides information, guidance and peer support for mentors. A forum for discussion of issues related to the role of supervisors of early childhood student teachers in the classroom is provided. Professional development course intended for individuals with AS Degree in Child Development to prepare them to become effective mentors.

## 265E - ADVANCED EARLY CHILDHOOD MENTORING (.5)

Short-term course: 9 lecture hours.

Mentor seminar provides opportunities for advanced studies of issues pertaining to supervision of student teachers in the early childhood classroom. Professional development course intended for individuals with AS Degree in Child Development to prepare them to become effective mentors.

## COMPUTER SCIENCE (CSCI)

### 1 - INTRODUCTION TO COMPUTER SCIENCE (3)

*Subject Prerequisite: MATH 103.*

2 lecture and 2 lab hours per week.

An introduction to computer science with emphases on critical thinking skills and programming concepts. Deductive reasoning; social and ethical implications; computer hardware and software; programming concepts and methodology.

The course is designed to prepare students with little or no programming experience for CSCI 40. CSCI 1 satisfies the Computer Familiarity requirement. (CSU)

### 5 - JAVA PROGRAMMING (3) CR/NC

*Basic Skills Advisories: Eligibility for ENGL 125 and ENGL 126.*

*Subject Prerequisites: MATH 103.*

2 lecture and 3 lab hours per week.

Introduction to object-oriented program design and development using JAVA. Course will introduce the fundamentals of JAVA language including data representation, control structures, class, object, methods, arrays, graphical user interfaces, and applets for web browser.

The course is designed for students interested in beginning programming. CSCI 5 satisfies computer familiarity requirement. (CSU, UC)

### 15 - INTRODUCTION TO UNIX (3)

*Basic Skills Advisories: Experience using a personal computer.*

*Subject Advisories: CSCI 1 or CSCI 5.*

2 lecture and 2 lab hours per week.

Introduction to UNIX operating system. Topics include accessing the system; file and directory organization; file accessing and security; shell features and scripting. This course satisfies computer familiarity requirement. (CSU)