

San Joaquin Delta College Catalog 98 - 99

Section III - Description of Courses " D - F "

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## DANCE

### **DANCE 2 Selected Topics: Dance** **Units 1-2**

*Prerequisites:* Reading level II or concurrent enrollment in reading.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is designed to offer instruction in one of the specialized areas of dance not already covered by existing curricula. (UC, CSU)

### **DANCE 3A Beginning Choreography** **Units 2**

*Prerequisites:* None.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is the study of theory, psychology, and skills of dance. Practical application through class projects plus college and community performances directed by students are emphasized. (UC, CSU)

### **DANCE 3B Advanced Choreography** **Units 2**

*Prerequisites:* DANCE 3A.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is designed to introduce the advanced elements of composition. Short studies in dance composition in relation to musical and dramatic forms are presented. Lectures, discussions, and demonstration are included. Practical application through class projects plus college and community performances directed by students are presented. (UC, CSU)

### **DANCE 5A Introductory Production: Repertory Company** **Units 3**

*Prerequisites:* Audition.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is an opportunity for students to learn choreography, staging, costuming, and presentation forms of dance. These performances include concerts in conjunction with other dance production classes and participation in drama productions as dancers. (UC, CSU)

### **DANCE 5B Beginning Production: Repertory Company** **Units 3**

*Prerequisites:* DANCE 5A or audition.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is an opportunity for students to learn a repertory of dances, direct and stage materials of various performance styles. These performances may include concerts in conjunction with other dance production classes and participation in drama productions as dancers. (UC, CSU)

### **DANCE 5C Intermediate Production: Repertory Company** **Units 3**

*Prerequisites:* DANCE 5B or audition.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is designed to provide students with lectures, readings, and assignments designed specifically to develop styles, qualities, methods, and materials of various performance techniques. Emphasis is on learning a repertory of dances and performing on and off campus in a variety of settings. These performances include concerts in conjunction with other dance production classes and participation in drama productions as dancers. (UC, CSU)

### **DANCE 5D Advanced Production: Repertory Company** **Units 3**

*Prerequisites:* Reading level II or concurrent enrollment in reading and DANCE 5C or audition.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is designed to provide students with lectures, readings, and assignments to develop advanced style theories, form methods, and materials of various performance techniques. Emphasis is on learning a repertory of dances and performing on and off campus in variety of settings. These performances include concerts in conjunction with other dance production classes and participation in drama productions as dancers. (UC, CSU)

### **DANCE 5E Production and Repertory Company** **Units 3**

*Prerequisites:* Reading level II or concurrent enrollment in reading; DANCE 5D; qualified performer.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is designed to provide students with a series of lectures, readings, and assignments designed specifically to develop students' skills using advanced styles, theories, form methods, and materials of various performance techniques. Emphasis is on learning a repertory of dances and performing on and off campus in a variety of settings. These performances include concerts in conjunction with other dance production classes and participation in drama productions as dancers. (CSU)

### **DANCE 6A Introductory Ballet** **Units 1.5**

*Prerequisites:* None.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is designed to present the fundamental theory and practice of ballet techniques. Emphasis is placed on placement, body alignment, muscular control, and the development of vocabulary of basic ballet positions and steps. (UC, CSU)

### **DANCE 6B Beginning Ballet** **Units 1.5**

*Prerequisites:* DANCE 6A.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is a review of the fundamental theory and practice of ballet techniques. In addition, material covered is universally accepted Grade 1. Combinations are stressed. (UC, CSU)

### **DANCE 7A Intermediate Ballet** **Units 1.5**

*Prerequisites:* Reading level II or concurrent enrollment in reading and DANCE 6B.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is a review of the fundamental theory and practice of Grade 1 ballet techniques. In addition, material covered is universally accepted Grade 2. Combinations are stressed. (UC, CSU)

### **DANCE 7B Advanced Ballet** **Units 1.5**

*Prerequisites:* Reading level II or concurrent enrollment in reading and DANCE 7A.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is a review of the fundamental theory and practice of Grade 2 ballet techniques. In addition, material covered is universally accepted Grades 3 and 4. More complex combinations and choreography are stressed. (UC, CSU)

**DANCE 8A Introductory Modern Dance Units 1.5**

*Prerequisites: Reading level II or concurrent enrollment in reading and DANCE 8A.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to condition students and to study the use of the body in rhythmic motion in some of the less complicated dances. Fundamental techniques are emphasized. Lectures and discussion are included. (UC, CSU)

**DANCE 8B Beginning Modern Dance Units 1.5**

*Prerequisites: Reading level II or concurrent enrollment in reading and DANCE 8A.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a study of techniques learned in the course including both pattern and creative dances. There are limited public performances. Lectures and discussions are included. (UC, CSU)

**DANCE 8C Intermediate Modern Dance Units 1.5**

*Prerequisites: Reading level II or concurrent enrollment in reading and DANCE 8B.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a study of intermediate dance techniques and patterns. Creative dances are practiced with the express purpose of establishing individual and group dances for public performances. Lectures and discussions are included. (UC, CSU)

**DANCE 8D Advanced Modern Dance Units 1.5**

*Prerequisites: Reading level II or concurrent enrollment in reading and DANCE 8C.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a study of advanced techniques, styles, and rhythms used in creative dances. These are practiced with the express purposes of establishing solo, individual, and group dances for public performances. Lectures and discussions are included. (UC, CSU)

**DANCE 8E Introductory Jazz Dance Units 1.5**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an introduction to standard jazz dance terminology, anatomy, primary stretches, isolations, port de bras, and fundamental jazz combinations. (UC, CSU)

**DANCE 8F Beginning Jazz Dance Units 1.5**

*Prerequisites: DANCE 8E or equivalent.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to introduce students to standard beginning terminology, jazz dance techniques, and dance combinations. The course includes comparisons of modern jazz and rock techniques. (UC, CSU)

**DANCE 8G Intermediate Jazz Dance Units 1.5**

*Prerequisites: DANCE 8F.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to introduce students to intermediate levels of technique and jazz dance combinations for performance level. (UC, CSU)

**DANCE 8H Advanced Jazz Dance Units 1.5**

*Prerequisites: Reading level II or concurrent enrollment in reading and DANCE 8G.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to introduce students to advanced levels of technique and jazz dance combinations for performance levels. (UC, CSU)

**DANCE 20A Introductory Theatre Dance and Movement Units 1-1.5**

*Prerequisites: Reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a study of the role of choreographed dance and the development of basic skills and body agility necessary for participation in theatre productions. Sections are offered in jazz and tap. (UC, CSU)

**DANCE 20B Beginning Theatre Dance and Movement Units 1-1.5**

*Prerequisites: Reading level II or concurrent enrollment in reading and DANCE 20A.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a study of the role of choreographed dance and the development of various skills, dance movements, techniques, and styles for participation in theatre productions. Sections are offered in jazz and tap. (UC, CSU)

**DANCE 20C Intermediate Theatre Dance and Movement Units 1-1.5**

*Prerequisites: Reading level II or concurrent enrollment in reading and DANCE 20B.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a study of the role of choreographed dances and the variety of intermediate styles, rhythms, improvisations, and techniques and skills needed for participation in theater production. Lecture and discussions are included. (UC, CSU)

**DANCE 20D Advanced Theatre Dance and Movement Units 1-1.5**

*Prerequisites: Reading level II or concurrent enrollment in reading and DANCE 20C.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a study of the role of choreographed dances and the variety of advanced styles, rhythms, improvisations and techniques, and skills need for participation in theater productions. (UC, CSU)

**DANCE 50H Special Studies: DANCE Units 1-2**

*Prerequisites: Reading level II or concurrent enrollment in reading; completion of survey course with a grade of 'B' or better and presentation of a project acceptable to the instructor and Division Chairperson.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is open to all students qualified to do advanced work in the field. The course includes research, directed reading, field work, or other advanced study, and the course may be repeated for a maximum of four units. (UC, CSU)

**DANCE 80 Selected Topics: Dance Units 1-2**

*Prerequisites: Reading level II or concurrent enrollment in reading.  
Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to offer instruction in one of the specialized areas of dance not already covered by existing curricula.

## DEVELOPMENTAL EDUCATION

**DV ED 15 Selected Topics: Learning Skills Units 1**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to meet the specific needs of students in the acquisition of learning skills in reading, study skills, writing, mathematics, and English as a Second Language (ESL). (CSU)

**DV ED 75 Selected Topics: Learning Skills Units 1-2**

*Prerequisites: Reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to meet the specific needs of students in the acquisition of learning skills in reading, study skills, writing, mathematics, and English as a Second Language (ESL).

**DV ED 76 Memory and Thinking Skills Units 2**

*Prerequisites: Reading level I or concurrent enrollment in reading level I.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to emphasize improving memory and thinking skills needed for success in content area studies.

**DV ED 78A Applied Mathematics Laboratory Units 0.5-3**

*Prerequisites: Concurrent enrollment in DV ED 86 A-D.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a developmental approach to the acquisition of essential mathematical competencies. This laboratory course provides each student with individualized diagnosis, prescription, and instruction to acquire mastery of computational and problem-solving skills. Units earned in this course do not count toward the associate degree.

**DV ED 78B Applied Mathematics Laboratory Units 0.5-3**

*Prerequisites: Concurrent enrollment in DV ED 86A-D.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a developmental approach to the acquisition of essential mathematical competencies. This laboratory course provides each student with individualized diagnosis, prescription, and instruction to acquire mastery of computational and problem-solving skills. Units earned in this course do not count toward the associate degree.

**DV ED 78C Applied Mathematics Laboratory Units 0.5-3**

*Prerequisites: Concurrent enrollment in DV ED 86A-D.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a developmental approach to the acquisition of essential mathematical competencies. This laboratory course provides each student with individualized diagnosis, prescription, and instruction to acquire mastery of computational and problem-solving skills. Units earned in this course do not count toward the associate degree.

**DV ED 78D Applied Mathematics Laboratory Units 0.5-3**

*Prerequisites: Concurrent enrollment in DV ED 86A-D.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a developmental approach to the acquisition of essential mathematical competencies. This laboratory course provides each student with individualized diagnosis, prescription, and instruction to acquire mastery of computational and problem-solving skills encompassed in DV ED 86D. Units earned in this course do not count toward the associate degree.

**DV ED 78E Applied Mathematics Laboratory Units 0.5-3**

*Prerequisites: Concurrent enrollment in DV ED 97A-D.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a developmental approach to the acquisition of essential mathematical competencies. This laboratory course provides each student with individualized diagnosis, prescription, and instruction to acquire mastery of computational and problem-solving skills. Units earned in this course do not count toward the associate degree.

**DV ED 78F Applied Mathematics Laboratory Units 1**

*Prerequisites: Concurrent enrollment in DV ED 97A-D.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a developmental approach to the acquisition of essential mathematical competencies. This laboratory course provides each student with individualized diagnosis, prescription, and instruction to acquire mastery of computational and problem-solving skills. Units earned in this course do not count toward the associate degree.

**DV ED 78G Applied Mathematics Laboratory Units 1**

*Prerequisites: Concurrent enrollment in BUS 82A-C.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a developmental approach to the acquisition of essential mathematical competencies. This laboratory course provides each student with individualized diagnosis, prescription, and instruction to acquire mastery of computational and problem solving skills. Units earned in this course do not count toward the associate degree.

**DV ED 78H Applied Mathematics Laboratory Units 1**

*Prerequisites: Concurrent enrollment in MATH 72.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a developmental approach to the acquisition of essential mathematical competencies. This laboratory course provides each student with individualized diagnosis, prescription, and instruction to acquire mastery of computational and problem-solving skills. Units earned in this course do not count toward the associate degree.

**DV ED 78I Applied Mathematics Laboratory Units 1**

*Prerequisites: Concurrent enrollment in DV ED 87A-B.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a developmental approach to the acquisition of essential mathematical competencies. This laboratory course provides each student with individualized diagnosis, prescription, and instruction to acquire mastery of computational and problem-solving skills. Units earned in this course do not count toward the associate degree.

**DV ED 78J Applied Mathematics Laboratory Units 1**

*Prerequisites: Concurrent enrollment in DV ED 87A-B.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a developmental approach to the acquisition of essential mathematical competencies. This laboratory course provides each student with individualized diagnosis, prescription, and instruction to acquire mastery of computational and problem-solving skills. Units earned in this course do not count toward the associate degree.

**DV ED 78K Applied Mathematics Laboratory Units 1**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a developmental approach to the acquisition of essential mathematical competencies. This laboratory course provides each student with individual diagnosis, prescription, and instruction to acquire mastery of the computational and problem-solving skills. This is an independent learning laboratory, and it may be taken for .5 to 3.0 units. This is an open entry/open exit course. Units earned in this course do not count toward the associate degree.

**DV ED 78L Applied Mathematics Laboratory Units 1**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a developmental approach to the acquisition of essential mathematical competencies. The laboratory course provides each student with individual diagnosis, prescription, and instruction to acquire mastery of computational and problem-solving skills. This is an independent learning laboratory, and it may be taken for .5 to 3.0 units. This is an open entry/open exit course. Units earned in this course do not count toward the associate degree.

**DV ED 78M Applied Mathematics Laboratory Units 1**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a developmental approach to the acquisition of essential mathematical competencies. The laboratory course provides each student with individual diagnosis, prescription, and instruction to acquire mastery of computational and problem-solving skills. This is an independent learning laboratory and it may be taken for .5 to 3.0 units. This is an open entry/open exit course. Units earned in this course do not count toward the associate degree.

**DV ED 78N Applied Mathematics Laboratory Units 1**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a developmental approach to the acquisition of essential mathematical competencies. The laboratory course provides each student with individualized diagnosis, prescription, and instruction to acquire mastery of computational and problem-solving skills. Units earned in this course do not count toward the associate degree.

**DV ED 78O Applied Mathematics Laboratory Units 1**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a developmental approach to the acquisition of essential mathematical competencies. The laboratory course provides each student with individualized diagnosis, prescription, and instruction to acquire mastery of computational and problem-solving skills. Units earned in this course do not count toward the associate degree.

**DV ED 78P Applied Mathematics Laboratory Units 1**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a developmental approach to the acquisition of essential mathematical competencies. This laboratory course provides each student with individualized diagnosis, prescription, and instruction to acquire mastery of computational and problem-solving skills. Units earned in this course do not count toward the associate degree.

**DV ED 86A Applied Basic Mathematics: Units 0.5  
Introduction**

*Prerequisites: Concurrent enrollment in DV ED 78 is required; exempt from assessment testing.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed for students to master problem solving using whole numbers at a 90 percent competency level. Units earned in this course do not count toward the associate degree.

**DV ED 86B Applied Basic Mathematics: Units 0.5  
Beginning**

*Prerequisites: Concurrent enrollment in DV ED 78 is required; exempt from assessment testing.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed for students to master problem solving using decimal numbers at a 90 percent competency level. Units earned in this course do not count toward the associate degree.

**DV ED 86C Applied Basic Mathematics: Units 0.5  
Intermediate**

*Prerequisites: Concurrent enrollment in DV ED 78 is required; exempt from assessment testing.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed for students to master problem solving using fraction numbers at a 90 percent competency level. Units earned in this course do not count toward the associate degree.

**DV ED 86D Applied Basic Mathematics: Units 0.5  
Advanced**

*Prerequisites: Concurrent enrollment in DV ED 78 is required; exempt from assessment testing.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed for students to master problem solving using percent numbers at a 90 percent competency level. Units earned in this course do not count toward the associate degree.

**DV ED 87A Survival Mathematics Units 0.5**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to provide vocabulary and problem solving skills necessary for competency in basic mathematics. DV ED 87A, and B is designed to provide ESL students with practical skill in measurement and money management with emphasis on the vocabulary and correct language usage needed to express number concepts. DV ED 87C, D, E, and F, Applied Math, is designed specifically to provide ESL students the prerequisite math competencies necessary for success in vocational and/or professional programs. This course is sequenced from whole numbers to percents inclusive of ratio/proportion, measurements, surfaces/shapes, and graphs/charts. Concurrent enrollment in DV ED 78I, J, A, B, C, D is required. Units earned in this course do not count toward the associate degree.

**DV ED 87B Survival Mathematics Units 0.5**

*Prerequisites: Level 83 ESL proficiency.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed for students to master vocabulary, computation, problem solving, and measurement using fractions and percents. The course is taken concurrently with DV ED 78J. Units earned in this course do not count toward the associate degree.

**DV ED 87C Survival Mathematics Units 0.5**

*Prerequisites: Level - ESL proficiency survival skills math is a math course utilizing demonstration experiences, and practice to provide students with competencies in the practical application of mathematics in daily living.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a mathematics course utilizing demonstration experiences and practice to provide students with competencies in the practical application of mathematics in daily living. Units earned in this course do not count toward the associate degree.

**DV ED 87D Survival Mathematics Units 0.5**

*Prerequisites: Level - ESL proficiency survival skills math is a math course utilizing demonstration experiences, and practice to provide students with competencies in the practical application of mathematics in daily living.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a mathematics course utilizing demonstration experiences and practice to provide students with competencies in the practical application of mathematics in daily living. Units earned in this course do not count toward the associate degree.

## DIESEL TECHNOLOGY

**DIESL 1 Introduction to Technical Programs Units 2**

*Prerequisites: Reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a hands-on introduction to a variety of skilled trades including auto and diesel mechanics, carpentry, electrical wiring, electronics, sheet metal, computer-aided drafting, hydraulics, welding and HVAC (heating, ventilating, and air-conditioning). Employers, apprenticeship representatives, and experienced tradeswomen and tradesmen provide practical information about working in technical occupations. Students are assisted in developing career goals and introduced to tool safety. (CSU)

**DIESL 41 Heavy Duty Brakes Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to give technical information and to develop skill in executing work on air-brake systems. Basic instruction is given through practical work on truck-brake systems and related mock-ups in preparation for employment in the truck and diesel industry. (CSU)

**DIESL 42 Heavy Duty Power Trains Units 3.5**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to provide technical information and to develop skills in working on transmissions and clutches. Basic and advanced instruction is given through practical work on truck transmissions and clutches used in today's modern trucks in preparation for employment in the truck and diesel industry. (CSU)

**DIESL 43 Heavy Duty Truck Components Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to give technical information and to develop skills in executing work on differentials, steering systems, and suspension systems. Basic and advanced instruction is given through practical work on truck components used in today's modern truck in preparation for employment in the truck and diesel industry. (CSU)

**DIESL 44 Diesel Engine Principles Units 3**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to give technical information and to develop skills in executing work on engines and vehicle maintenance. Basic instruction is given through practical work on diesel engines and related mock-ups in preparation for employment in the truck and diesel industry. (CSU)

**DIESL 45 Diesel Engine Repair Units 4.5**

*Prerequisites: Reading level II or concurrent enrollment in reading; DIESL 44, or concurrent enrollment in DIESL 44.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to prepare students to enter the truck and diesel industries. The course provides for advanced technical information covering complete overhaul and testing of diesel engines used in different makes of trucks. (CSU)

**DIESL 46 Diesel Engine Fuel and Tune-Up Units 3**

*Prerequisites: Reading level II or concurrent enrollment in reading.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to give technical information and to develop skill in executing work on diesel fuel systems. Basic and advanced instruction is given through practical work on diesel fuel pumps, injectors and engines in the preparation for employment in the truck and diesel industry. (CSU)

**DIESL 47 Diesel Air Conditioning Units 2**

*Prerequisites: Reading level II or concurrent enrollment in reading.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to give technical information and to develop skill in working on air conditioning systems. Basic and advanced instruction is given through practical work on components used in today's modern equipment. (CSU)

**DIESL 49 Computer Diagnosis and Troubleshooting Units 2**

*Prerequisites: None.*

This course is designed to provide students technical information and to develop skill in executing work on electronic diesel engines. The operation, construction, and service procedures on various manufacturers' electronic fuel systems used in today's modern trucks are covered. (CSU)

**DIESL 69V Internship: Diesel Mechanics Units 1-8**

*Prerequisites: None.*  
*Corequisites: None.*

*Limitations on Enrollment: The student must enroll in a course that is directly related to the diesel mechanics internship. The student must enroll in a minimum of 7 units during the semester including internship units. For summer session, the student must enroll in one related course in addition to internship. The combined total number of units a student may take in internship, work experience, and occupational practice may not exceed a maximum of 16 units. Participation requires submission and approval of internship program objectives and an employer internship agreement.*

*Advisories: GUID 30, 31, 32, 33.*

This course is designed for students participating in an occupational internship in diesel mechanics. Application of discipline-related skills and knowledge of Secretaries Commission on Achieving Necessary Skills (SCANS) competencies is emphasized. Each student is engaged in a specific research project or on-the-job learning activities under the supervision of a worksite supervisor and a college internship instructor. (CSU)

**DIESL 75 Selected Topics: Diesel Technology Units 1-2**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to offer instruction in one of the specialized areas of diesel technology not already covered by existing curricula.

**DIESL 87A Diesel Specialization Units 3**

*Prerequisites: Reading level II or concurrent enrollment in reading; DIESL 40A or DIESL 41A.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to assist advanced students in gaining a better knowledge in an area to further prepare themselves to enter the diesel trade. The time and work covered is developed at the beginning of the course between the student and the instructor.

**DIESL 87B Diesel Specialization Units 5**

*Prerequisites: Reading level II or concurrent enrollment in reading; DIESL 40A or DIESL 41A.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to assist advanced students in gaining a better knowledge in an area to further prepare themselves to enter the diesel trade. The time and work covered is developed at the beginning of the course between the student and the instructor.

**DRAMATIC ARTS**

**DRAMA 1A Introductory Actor's Studio Units 6**

*Prerequisites: Reading level II or concurrent enrollment in reading; concurrent enrollment in DRAMA 19 or completion of DRAMA 19D; qualified performer.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is a practical performance-oriented study designed to introduce the career-oriented drama student to an integrated program of skills in actor training. Studies include basic principles of acting, improvisation, voice and movement dynamics, and beginning scene study. (UC, CSU)

**DRAMA 1B Beginning Actor's Studio Units 6**

*Prerequisites: Reading level II or concurrent enrollment in reading; DRAMA 1A; concurrent enrollment in DRAMA 19 or completion of DRAMA 19D; qualified performer.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a continuation of Introductory Actor's Studio offering a further examination of an integrated program of beginning skills in actor training for the career-oriented acting student. Studies include audition techniques, beginning scene study, speech for the stage, and dialects. (UC, CSU)

**DRAMA 1C Intermediate Actor's Studio Units 8**

*Prerequisites: Reading level II or concurrent enrollment in reading; DRAMA 1B; concurrent enrollment in DRAMA 19 or completion of DRAMA 19D; qualified performer.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a practical performance-oriented study designed to introduce the career-oriented drama student to an integrated program of intermediate skills in actor training. Studies include intermediate audition techniques, Shakespeare scene study, intermediate scene study, and project work in one or more classic styles. (UC, CSU)

**DRAMA 1D Advanced Actor's Studio Units 8**

*Prerequisites: Reading level II or concurrent enrollment in reading; DRAMA 1C; concurrent enrollment in DRAMA 19 or completion of DRAMA 19D; qualified performer.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a continuation of Intermediate Actor's Studio offering a further examination of an integrated program of advanced skills in actor training. Studies include advanced scene study and project, advanced audition techniques, and acting for the camera. (UC, CSU)

**DRAMA 5 Selected Topics: Drama Units 1-2**

*Prerequisites: Reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to offer instruction in one of the specialized areas of drama not already covered by existing curricula. (UC, CSU)

**DRAMA 10 Theatre Appreciation Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a survey course designed to develop an appreciation of theatre as an art form to include general nature of dramatic presentation, elements of dramatic structure, types of drama, and particular contributions of the actor, director, designers, technicians, and audience. (UC, CSU)

**DRAMA 15A Make-Up for the Theatre Units 1.5**

*Prerequisites: Reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an introduction to the theory and techniques in the use of make-up for the theatre, such as straight, age, and character make-up, beard construction, and special effects. Laboratory sessions plus work on a make-up crew for college productions or a special project are conducted. (UC, CSU)

**DRAMA 15B Advanced Make-Up for the Theatre Units 1.5**

*Prerequisites: Reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is the application of the theory and techniques in the use of make-up for the theatre, such as straight, age, and character make-up, beard construction, and special effects. Laboratory sessions plus work on a make-up crew for college productions or a special project are conducted. (UC, CSU)

**DRAMA 16A History of Theatre: Primitive to 1800 Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to introduce the physical structure, representative plays, practices, and theatre traditions from primitive times to the 1800s. (UC, CSU)

**DRAMA 16B History of Theatre: 1800 to Present Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to introduce the physical structure, representative plays, practices and theatre traditions from 1800 to present day in Europe and America. (UC, CSU)

**DRAMA 17A Introductory Theatre Dance and Movement Units 1-1.5**

*Prerequisites: Reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is the study of the role of choreographed dance and the development of basic skills and body agility necessary for participation in theatre productions. Sections are offered in jazz and tap. (UC, CSU)

**DRAMA 17B Beginning Theatre Dance and Movement Units 1-1.5**

*Prerequisites: Reading level II or concurrent enrollment in reading; DRAMA 17A.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is the study of the role of choreographed dance and the development of various skills, dance movements, techniques and styles for participation in theatre production in theatre productions. Sections are offered in jazz and tap. (UC, CSU)

**DRAMA 17C Intermediate Theatre Dance and Movement Units 1-1.5**

*Prerequisites: Reading level II or concurrent enrollment in reading and DRAMA 17B or equivalent.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is the study of the role of choreographed dances and the variety of intermediate styles, rhythms, improvisations and techniques and skills needed for participation in theater production. Lecture and discussions are included. (UC, CSU)

**DRAMA 17D Advanced Theatre Dance Units 1-1.5  
and Movement**

*Prerequisites: Reading level II or concurrent enrollment in reading and DRAMA 17C.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is the study of the role of choreographed dances and the variety of advanced styles, rhythms, improvisations and techniques and skills needed for participation in theater production. (UC, CSU)

**DRAMA 18A Beginning Fencing Units 1-1.5**

*Prerequisites: Reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is the development of the basic skills and techniques of fencing with the three combative weapons of foil, epee, and sabre. The course covers developmental exercises with skills and techniques in formal competition. Drama and dance students find it valuable for mental and body discipline on the stage. (UC, CSU)

**DRAMA 18B Intermediate Fencing Units 1-1.5**

*Prerequisites: Reading level II or concurrent enrollment in reading and DRAMA 18A.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is provided for the development of the intermediate skills and techniques of fencing with the three combative weapons of foil, epee, and sabre. The course covers developmental exercises with skills and techniques in formal competition. Drama and dance students find it valuable for mental and body discipline on the stage. (UC, CSU)

**DRAMA 18C Advanced Fencing Units 1-1.5**

*Prerequisites: Reading level II or concurrent enrollment in reading and DRAMA 18B.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is provided for the development of the advanced skills and techniques of fencing with the three comparative weapons of foil, epee, and sabre. The course covers developmental exercise with skills and techniques in formal competition. Drama and dance students find it valuable for mental and body discipline on the stage. (UC, CSU)

**DRAMA 19A Introductory Technical Units 2.5  
Theatre Workshop**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an introductory lecture, demonstration and laboratory experience covering the technical phases of scenic, lighting, sound, and costume production including construction, cutting, sewing, painting, rigging, placement, and manipulation of stage scenery, lighting, sound properties, and selection of materials. Students study the aesthetics, practical applications, and the principles of set, sound, lighting, costume design, and construction. Crew work on production is required of students. (UC, CSU)

**DRAMA 19B Beginning Technical Units 2.5  
Theatre Workshop**

*Prerequisites: DRAMA 19A.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a beginning lecture, demonstration, and laboratory experience concerning all technical phases of scenic, lighting, sound, and costume production including construction, painting, rigging, introduction to design principles, color theory, fabrics, sound, properties, and selection of materials. Students further study the aesthetics, practical applications, and the principles of set, sound, lighting, and costume design as it applies to the actors performance. Crew work on productions is required of students. (UC, CSU)

**DRAMA 19C Intermediate Technical Units 2.5  
Theatre Workshop**

*Prerequisites: Reading level II or concurrent enrollment in reading; DRAMA 19B.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a survey made through lecture, demonstration, and laboratory experience on all technical phases of scenic, lighting, sound, and costume production including design. Students gain additional knowledge of the principles of design as it specifically applies to the sets, properties, costumes, sound, and lighting. Students also gain knowledge of costume history, history of scenic techniques, and history as it applies to properties. Crew work on productions is required of students. (UC, CSU)

**DRAMA 19D Advanced Technical Units 2.5  
Theatre Workshop**

*Prerequisites: Reading level II or concurrent enrollment in reading; DRAMA 19C.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a survey made through lecture, demonstration, and laboratory experience on all technical phases of scene and costume production including construction, painting, rigging, placement, and manipulation of stage scenery, lighting equipment, sound, properties, and selection of materials. Students gain knowledge of all directorial concepts as it specifically applies to the design of sets, properties, costumes, sound, and lighting. Crew work on productions is required of students. (UC, CSU)

**DRAMA 22 Scene Design Units 3**

*Prerequisites: Reading level II or concurrent enrollment in reading and DRAMA 20A.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a survey of a scenic design for the theatre from the time of the Greeks to the present. The course is an introduction to basic design problems for the stage. There is training in model building, rendering, and structural drawing. Work on college productions is required. (UC, CSU)

**DRAMA 23 Costuming Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a beginning course in custom construction, fabrics, wardrobe plotting, and historical styles. (UC, CSU)

**DRAMA 25A Applied Dramatic Art Units 1-3**

*Prerequisites: Reading level II or concurrent enrollment in reading; qualified performer.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is for rehearsal, performance, and crew work for public performance. The course includes all phases of production, acting, technical staff, and house management. Emphasis is placed on individual initiative, dependability, development, and participation. (UC, CSU)

**DRAMA 25B Applied Dramatic Art Units 1-3**

*Prerequisites: Reading level II or concurrent enrollment in reading and DRAMA 25A; qualified performer.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a continuation of rehearsal, performance, and crew work for public performance. The course includes all phases of production, acting, technical staff, and house management. Emphasis is placed on individual initiative, dependability, development, and participation. (UC, CSU)

**DRAMA 25C Applied Dramatic Art Units 1-3**

*Prerequisites: Reading level II or concurrent enrollment in reading and DRAMA 25B; qualified performer.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is for intermediate rehearsal, performance, and crew work for public performance. The course includes all phases of production, acting, technical staff, and house management. Emphasis is placed on individual initiative, dependability, development, and participation. (UC, CSU)

**DRAMA 25D Applied Dramatic Art Units 1-3**

*Prerequisites: Reading level II or concurrent enrollment in reading and DRAMA 25C; qualified performer.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is for advanced rehearsal, performance, and crew work for public performance. The course includes all phases of production, acting, technical staff, and house management. Emphasis is placed on individual initiative, dependability, development, and participation. (UC, CSU)

**DRAMA 25E Applied Dramatic Art Units 1-3**

*Prerequisites: Reading level II or concurrent enrollment in reading and DRAMA 25D; concurrent enrollment in DRAMA 1 or completion of DRAMA 10; qualified performer.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed for advance rehearsal, performance, and crew work for public performance. The course includes all phases of production, acting, technical staff, and house management. Emphasis is placed on individual initiative, dependability, development, and participation. (UC, CSU)

**DRAMA 26A Repertory Theatre Workshop Units 2**

*Prerequisites: Reading level II or concurrent enrollment in reading/audition.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an introduction to rehearsal, performance, and crew work where emphasis is placed on solving the problems of production by preparation of several plays or musicals for public performance. (UC, CSU)

**DRAMA 26B Repertory Theatre Workshop Units 2**

*Prerequisites: Reading level II or concurrent enrollment in reading and DRAMA 26A; qualified performer.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a beginning course in rehearsal, performance, and crew work where emphasis is placed on solving the problems of production by preparation of several plays or musicals for public performance. (UC, CSU)

**DRAMA 26C Repertory Theatre Workshop Units 2**

*Prerequisites: Reading level II or concurrent enrollment in reading and DRAMA 26B; qualified performer.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an intermediate course in rehearsal, performance, and crew work where emphasis is placed on solving the problems of production by preparation of several plays or musicals for public performance. (UC, CSU)

**DRAMA 26D Repertory Theatre Workshop Units 2**

*Prerequisites: Reading level II or concurrent enrollment in reading and DRAMA 26C or audition.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a culminating course in rehearsal, performance, and crew work where emphasis is placed on solving the problems of production by preparation of several plays for public performance. (UC, CSU)

**DRAMA 26E Repertory Theatre Workshop Units 2**

*Prerequisites: Reading level II or concurrent enrollment in reading and DRAMA 26D; concurrent enrollment in DRAMA 1 or completion of DRAMA 10; qualified performer.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a culminating course in rehearsal, performance, and crew work where emphasis is placed on solving the problems of production by preparation of several plays or musicals for public performance. (UC, CSU)

**DRAMA 28A Musical Revue Cabaret Theatre Units 1.5**

*Prerequisites: Qualified performer.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a course in musical theatre which gives an overview of the development of the musical and cabaret review performance historically, musically, and dramatically, and its application to vaudeville and the more intimate contemporary form, the cabaret act. Culminating activities include selection preparation, and performance of selected sketches, musical numbers, and dancing with appropriate narrative. (UC, CSU)

**DRAMA 28B Musical Revue Cabaret Theatre Units 1.5**

*Prerequisites: DRAMA 28A; qualified performer.  
Limitations on Enrollment: None.  
Advisories: None.*

This course is a course in musical theatre which informally reviews the development of the musical and cabaret performance and its application to vaudeville and the more intimate contemporary form, the cabaret act. Culminating activities include selection, preparation, and performance of selected sketches, musical numbers, and dancing with appropriate narrative dealing with the 1910-20 genre. (UC, CSU)

**DRAMA 28C Musical Revue Cabaret Theatre Units 1.5**

*Prerequisites: DRAMA 28B; qualified performer.  
Limitations on Enrollment: None.  
Advisories: None.*

This course is a course in musical theatre which focuses on the different aspects of cabaret and musical revue. Culminating activities include preparation, and performance of selected sketches including an original sketch by students and organizing food and service for the audience. Special emphasis is given to comedy sketches and their writing and performance. (UC, CSU)

**DRAMA 28D Musical Revue Cabaret Theatre Units 1.5**

*Prerequisites: Reading level II or concurrent enrollment in reading; DRAMA 28C; qualified performer.  
Limitations on Enrollment: None.  
Advisories: None.*

This course is a course in musical theatre which gives students opportunity to develop solo and scripted materials for cabaret and musical revue performances. Culminating activities include selection, preparation, and performance of selected sketches, musical numbers, and dancing with an emphasis on single person presentations. Writing of original narrative and scripts is required. (UC, CSU)

**DRAMA 30 Theatre Production Planning Units 3**

*Prerequisites: DRAMA 33A.  
Limitations on Enrollment: None.  
Advisories: None.*

This course is designed to teach students to successfully plan, schedule, and present a theatre event. Students make decisions in regards to the many areas i.e., financing, performers, designers, and technicians involved in mounting a theatrical production. As a final project, students present a written production planning report on a selected play. (CSU)

**DRAMA 31A Beginning Principles and Practices of Acting Units 3**

*Prerequisites: Reading level II or concurrent enrollment in reading.  
Limitations on Enrollment: None.  
Advisories: None.*

This course is designed to introduce beginning acting students to the principles of acting including pantomime, improvisations, characterization development, rehearsal process, and basic stage terminology culminating in scene work and audition techniques. (UC, CSU, CAN DRAMA8)

**DRAMA 31B Advanced Principles and Practices of Acting Units 3**

*Prerequisites: Reading level II or concurrent enrollment in reading and DRAMA 31A.  
Limitations on Enrollment: None.  
Advisories: None.*

This course is designed to review and exercise the parts of the composite art of acting which includes thought, emotion, and specific movement and vocal techniques. Emphasis is placed on pantomime improvisation and exercise culminating in scene work. The ultimate goal is to develop a firm foundation in basic acting techniques. (UC, CSU)

**DRAMA 37 Theatre Management and Promotion Units 2.5**

*Prerequisites: None.  
Limitations on Enrollment: None.  
Advisories: None.*

This course is designed to present principles of organization, operation, and administration of educational, community and professional theatre as well as box office operations, production accounting, ticket sales, house management and promotional media. Supervised experience in developing drama publicity materials, box office operations, and house management is emphasized. (CSU)

**DRAMA 45B Introductory Children's Theatre Units 3**

*Prerequisites: Reading level II or concurrent enrollment in reading.  
Limitations on Enrollment: None.  
Advisories: None.*

This course is designed for play selection, acting, movement, and rehearsal and culminating in a public performance for a children's audience. (CSU)

**DRAMA 45C Beginning Children's Theatre Units 3**

*Prerequisites: Reading level II or concurrent enrollment in reading and DRAMA 45B.  
Limitations on Enrollment: None.  
Advisories: None.*

This course is designed for play selection, acting, movement, and rehearsal and culminating in a public performance for a children's audience. (UC, CSU)

**DRAMA 45D Intermediate Children's Theatre Units 3**

*Prerequisites: Reading level II or concurrent enrollment in reading and DRAMA 45C.  
Limitations on Enrollment: None.  
Advisories: None.*

This course is designed for intermediate play selection, acting, movement, and rehearsal and culminating in a public performance for a children's audience. (UC, CSU)

**DRAMA 45E Advanced Children's Theatre Units 3**

*Prerequisites: Reading level II or concurrent enrollment in reading and DRAMA 45D or equivalent.  
Limitations on Enrollment: None.  
Advisories: None.*

This course is designed for advanced problems in acting, directing, rehearsal and culminating in a public performance for children's audience. (UC, CSU)

**DRAMA 47A Musical Theatre Workshop Units 3**

*Prerequisites: Reading level II or concurrent enrollment in reading; qualified performer.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to teach students how to perform in the genre of musical theatre. Emphasis is placed on learning how to make believable transitions in characterizations from acting, to singing, and to dancing. History and styles of musicals are included. The course is not designed to teach the basic elements of acting, singing, or dancing, but rather how to coordinate them. (UC, CSU)

**DRAMA 47B Musical Theatre Workshop Units 3**

*Prerequisites: Reading level II or concurrent enrollment in reading and DRAMA 47A; qualified performer.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a continuation of the theory and techniques used to perform in the genre of musical theatre. Emphasis is placed on learning how to make believable transitions in characterizations from acting, to singing, to dancing. History and styles of musicals are included. The course is not designed to teach the basic elements of acting, singing, or dancing, but rather how to coordinate them. (UC, CSU)

**DRAMA 47C Musical Theatre Workshop Units 3**

*Prerequisites: Reading level II or concurrent enrollment in reading and DRAMA 47B; qualified performer.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a continuation of the theory and techniques used to perform in the genre of musical theatre. Emphasis is placed on learning how to make believable transitions in characterizations from acting, to singing, to dancing. History and styles of musicals are included. The course is not designed to teach the basic elements of acting, singing, or dancing, but rather how to coordinate them. (CSU)

**DRAMA 47D Musical Theatre Workshop Units 3**

*Prerequisites: Reading level II or concurrent enrollment in reading and DRAMA 47C; qualified performer.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a continuation of the theory and techniques used to perform in the genre of musical theatre. The emphasis is placed on learning how to make believable transition in characterizations from acting, to singing, to dancing. History and styles of musicals are included. The course is not designed to teach the basic elements of acting, singing, or dancing, but rather how to coordinate them. (CSU)

**DRAMA 47E Musical Theatre Workshop Units 3**

*Prerequisites: reading level II or concurrent enrollment in reading and DRAMA 47D; concurrent enrollment in DRAMA 1 or completion of DRAMA 1D; qualified performer.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a continuation of the theory and techniques used to perform in the genre of musical theatre. Emphasis is placed on learning how to make believable transitions in characterizations from acting, to singing, to dancing. History and styles of musicals are included. The course is not designed to teach the basic elements of acting, singing, or dancing, but rather how to coordinate them. (CSU)

**DRAMA 49A Summer Musical Theatre Production Units 3**

*Prerequisites: Reading level II or concurrent enrollment in reading; qualified performer.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to give students instruction in all areas of musical theatre including auditioning, acting, singing, dancing, and technical production culminating in a complete production. (UC, CSU)

**DRAMA 49B Summer Musical Theatre Production Units 3**

*Prerequisites: Reading level II or concurrent enrollment in reading; DRAMA 49A; qualified performer.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to give students instruction in all areas of musical theatre including auditioning, acting, singing, dancing, and technical production culminating in a complete production. (UC,CSU)

**DRAMA 49C Summer Musical Theatre Production Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to give students opportunities for advanced experience in all areas of musical theatre including auditioning, acting, singing, dancing, and technical production culminating in a complete production with a particular emphasis on ensemble playing. (UC, CSU)

**DRAMA 49D Summer Musical Theatre Production Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to give students opportunities for advanced experience in all areas of musical theatre including auditioning, acting, singing, dancing, and technical production culminating in a complete production with special emphasis for organization of the technical aspects of producing a musical. (UC, CSU)

**DRAMA 49E Summer Musical Theatre Production Units 3**

*Prerequisites: Reading level II or concurrent enrollment in reading; DRAMA 49D; concurrent enrollment in DRAMA 1 or completion of DRAMA 1D; qualified performer.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to give students opportunities for advanced experience in all areas of musical theatre including auditioning, acting, singing, dancing, and technical production culminating in a complete production with special emphasis for organization of the technical aspects of producing a musical. (CSU)

**DRAMA 50A Special Studies: Drama Units 1-2**

*Prerequisites: Reading level II or concurrent enrollment in reading; completion of survey course with grade of 'B' or better; and presentation of a project acceptable to the instructor and Division Chairperson.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is open to all students qualified to do advanced work in the field. The course includes research, directed reading, field work, or other advanced study, and the course may be repeated for a maximum of four units. (UC, CSU)

**DRAMA 50B Special Studies: Directing Units 1-2**

*Prerequisites: Reading level II or concurrent enrollment in reading; completion of survey course with grade of 'B' or better; and presentation of a project acceptable to the instructor and Division Chairperson.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is open to all students qualified to do advanced work in the field. The course includes research, directed reading, field work, or other advanced study, and the course may be repeated for a maximum of four units. (UC, CSU)

**DRAMA 50C Special Studies: Technical Theatre Units 1-2**

*Prerequisites: Reading level II or concurrent enrollment in reading; completion of survey course with grade of 'B' or better; and presentation of a project acceptable to the instructor and Division Chairperson.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is open to all students qualified to do advanced work in the field. The course includes research, directed reading, field work, or other advanced study, and the course may be repeated for a maximum of four units. (UC, CSU)

**DRAMA 50D Special Studies: Dance Units 1-2**

*Prerequisites: Reading level II or concurrent enrollment in reading; completion of survey course with grade of 'B' or better; and presentation of a project acceptable to instructor and Division Chairperson.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is open to all students qualified to do advanced work in the field. The course includes research, directed reading, field work, or other advanced study, and the course may be repeated for a maximum of four units. (UC, CSU)

**DRAMA 50E Special Studies: House Box Office Management Units 1-2**

*Prerequisites: Reading level II and concurrent enrollment in reading; completion of survey course with grade of 'B' or better; and presentation of a project acceptable to the instructor and Division Chairperson.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is open to all students qualified to do advanced work in the field. The course includes research, directed reading, field work, or other advanced study, and the course may be repeated for a maximum of four units. (CSU)

**DRAMA 50F Special Studies: Playwriting Units 1-2**

*Prerequisites: Reading level II or concurrent enrollment in reading; completion of survey course with grade of 'B' or better; and presentation of a project acceptable to the instructor and Division Chairperson.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is open to all students qualified to do advanced work in the field. The course includes research, directed reading, field work, or other advanced study, and the course may be repeated for maximum of four units. (CSU)

**DRAMA 50G Special Studies: Creative Drama Units 1-2**

*Prerequisites: Reading level II or concurrent enrollment in reading; completion of survey course with grade of 'B' or better; and presentation of a project acceptable to the instructor and Division Chairperson.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is open to all students qualified to do advanced work in the field. The course includes research, directed reading, field work, or other advanced study, and the course may be repeated for a maximum of four units. (CSU)

**DRAMA 50H Special Studies: Costuming Units 1-2**

*Prerequisites: Reading level II or concurrent enrollment in reading; completion of survey course with grade of 'B' or better; and presentation of a project acceptable to the instructor and Division Chairperson.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is open to all students qualified to do advanced work in the field. The course includes research, directed reading, field work, or other advanced study, and the course may be repeated for a maximum of four units. (UC, CSU)

**DRAMA 80 Selected Topics: Drama Units 1-2**

*Prerequisites: Reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to offer instruction in one of the specialized areas of drama not already covered by existing curricula.

## ECONOMICS

**ECON 1A Principles of Economics: Macro Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is recommended for majors in economics, business, or social science. The course centers around macroeconomics which is the study of aggregates of firms, households, prices, wages, and income. (UC, CSU, CAN ECON 2)

**ECON 1B Principles of Economics: Micro Units 3**

*Prerequisites: ECON 1A.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is an introductory course and it is recommended for economics, business, or social science majors. The course deals with micro-economics which is the study of individual firms, households, prices, wages, and income. (UC, CSU, CANECON 4)

**ECON 15 Selected Topics: Economics Units 0.5-1**

*Prerequisites: Reading level II.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to offer instruction in one of the specialized areas of economics not already covered by existing curriculum. (UC, CSU)

**ECON 50H Special Studies: Economics Units 1-2**

*Prerequisites: Reading level II; completion of survey course with grade of "B" or better and presentation of a project acceptable to the instructor and division chairperson.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is open to students qualified to do advanced work in the field. The course includes research, directed reading, field work, or other advanced study, and the course may be repeated for a maximum of four units. (UC, CSU)

## EDUCATION

**EDUC 10 Introduction to Education Units 3-4**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed as an exploration of the field of education for anyone interested in learning about the educational system. Particular emphasis is placed upon learning to understand the educational system in California. When taken for four units, the course includes thirty-five hours of early field experience required for a California credential. (CSU)

## ELECTRICAL TECHNOLOGY

**ELEC 1 Introduction to Technical Programs Units 2**

*Prerequisites: Reading level II or concurrent enrollment in reading.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed for all students considering career possibilities in trade and industrial technology. The instructor, master technician, and educators present a series of lectures and laboratories to help students develop career goals. This course includes an introduction to automotive technology, construction technology, diesel technology, electrical technology, electronic technology, and industrial technology. (CSU)

**ELEC 30 Fundamentals of Electricity Units 5**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to present the fundamental working principles of electricity and magnetism through study and a series of experiments. Students learn to develop skills in reading meters and circuit construction and to understand Ohms Law and its application. (CSU)

**ELEC 31 Electrical Wiring Methods Units 7**

*Prerequisites: Reading level II or concurrent enrollment in reading; ELEC 30, or ELECT 11, or ELECT 12.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to cover the theory and skills involved in planning and installing nonmetallic-sheathed cable, electrical metallic tube, and rigid conduit. Other areas covered include computations, building of electrical services, grounding, and electrical safety. (CSU)

**ELEC 32 Electrical Motors Units 5**

*Prerequisites: Reading level II or concurrent enrollment in reading; ELEC 30 or ELECT 11.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to introduce the theory of DC motors, AC motors, and alternators. (CSU)

**ELEC 33 Industrial Wiring Methods Units 5**

*Prerequisites: Reading level II or concurrent enrollment in reading; ELEC 30 or ELECT 11.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to teach the application of wiring methods, controls, and machines in commercial and industrial situations. The code and theory covering such applications are covered. (CSU)

**ELEC 34 Advanced Motors and Controls Units 5**

*Prerequisites: Reading level II or concurrent enrollment in reading; ELECT 11 or ELEC 30.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to present the theory and advanced application of DC motors and controls and the advanced application of AC motors and three-phase alternators. Single-phase transformers, three-phase transformers, and control (ladder) diagrams are discussed. (CSU)

**ELEC 75 Selected Topics: Electrical Technology Units 1-2**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to offer instruction in one of the specialized areas of electrical technology not already covered by existing curricula.

**ELEC 87A Electrical Specialization Units 3-4**

*Prerequisites: ELEC 33 or ELEC 34.*  
*Limitation on Enrollment: This course requires instructor approval to enroll.*  
*Advisories: None.*  
 This course is designed for advanced students in electricity. Students complete an advanced specialized project developed in consultation with the instructor.

**ELEC 87B Electrical Technology Specialization Units 5**

*Prerequisites: ELEC 32B or equivalent.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*  
 This course is designed to assist advanced students in gaining a greater knowledge of a specialized area of the electrical trade. The work covered is developed between the student and the instructor at the beginning of the course.

**ELECTRICAL  
 TECHNOLOGY:  
 APPRENTICESHIP**

**A-ELE 70A Introduction to Electricity Units 4**

*Prerequisites: None.*  
*Limitation on Enrollment: Indentured Apprentice.*  
*Advisories: None.*  
 This course is designed to provide students with the knowledge of the fundamentals of electricity including safety, introduction to electricity, and careers in the electrical field.

**A-ELE 70B Electrical Fundamentals Units 4**

*Prerequisites: None.*  
*Limitation on Enrollment: Indentured Apprentice.*  
*Advisories: None.*  
 This course is designed to provide students with the knowledge of the fundamentals of combination circuits, conductors, insulators, and electrical print reading.

**A-ELE 71A Electrical Circuits and Code Units 4**

*Prerequisites: None.*  
*Limitation on Enrollment: Indentured Apprentice.*  
*Advisories: None.*  
 This course is designed to provide students with the knowledge of the fundamentals of the National Electrical Code requirements, alternating current principles, alternating circuits, wire characteristics, and conduit bending.

**A-ELE 71B Electrical Circuits and Equipment Units 4**

*Prerequisites: None.*  
*Limitation on Enrollment: Indentured Apprentice.*  
*Advisories: None.*  
 This course is designed to provide students with the knowledge of the fundamentals of electrical test equipment, inductance, capacitance, transformers, and commercial construction drawings.

**A-ELE 72A Electrical Motors Units 4**

*Prerequisites: None.*  
*Limitation on Enrollment: Indentured Apprentice.*  
*Advisories: None.*  
 This course is designed to provide students with the knowledge of the fundamentals of electrical grounding, resonance circuits, high and low voltage wiring systems and electrical motors.

**A-ELE 72B Electrical Motor Control Systems Units 4**

*Prerequisites: None.*  
*Limitation on Enrollment: Indentured Apprentice.*  
*Advisories: None.*  
 This course is designed to provide students with the knowledge of the fundamentals of three-phase transformers, direct current motors, motor starters, control systems, air conditioning and refrigeration systems.

**A-ELE 73A Electrical Motor Control Circuits Units 4**

*Prerequisites: None.*  
*Limitation on Enrollment: Indentured Apprentice.*  
*Advisories: None.*  
 This course is designed to provide students with advanced knowledge of electricity, motor controls, semiconductors, electronic devices, and refrigeration system installation.

**A-ELE 73B Programmable Logic Controllers Units 4**

*Prerequisites: None.*  
*Limitation on Enrollment: Indentured Apprentice.*  
*Advisories: None.*  
 This course is designed to provide students with the knowledge of the fundamentals of electronic devices, digital logic circuits, process control, and programmable logic controllers.

**A-ELE 74A Motor Control Systems Units 4**

*Prerequisites: None.*  
*Limitation on Enrollment: Indentured Apprentice.*  
*Advisories: None.*  
 This course is designed to provide students with a working knowledge of programmable logic controllers, their installation, operation and programming.

**A-ELE 75A Basic Electricity Units 2**

*Prerequisites: None.*  
*Limitations on Enrollment: Indentured apprentice.*  
*Advisories: None.*  
 This course is designed to provide a background in basic electricity. The course includes theory and applications of electricity, Ohms Law, magnetism, power and circuits.

**A-ELE 75B Advanced Electricity Units 2**

*Prerequisites: None.*  
*Limitations on Enrollment: Indentured apprentice.*  
*Advisories: None.*  
 This course is designed to provide a background in the theory and application of advanced electricity. Topics included are alternating current, inductance, capacitance, transformers, circuits, and vectors related to motor and generators.

**A-ELE 75C Transformers and Polychlorinated Biphenyl Units 2**

*Prerequisites: None.*  
*Limitations on Enrollment: Indentured apprentice.*  
*Advisories: None.*  
 This course is designed to includes the theory and advanced application of transformers, power circuit breakers, electrical controls and print reading.

**A-ELE 75D Protective Relaying                      Units 2**

*Prerequisites: None.*

*Limitations on Enrollment: Indentured Apprentice.*

*Advisories: None.*

This course is an introduction to the theories and skills involved in basic power system protective relay design and operation.

**A-ELE 75E High Voltage Switching                      Units 2**

*Prerequisites: None.*

*Limitations on Enrollment: Indentured apprentice.*

*Advisories: None.*

This course is designed for students to acquire the knowledge necessary to perform high voltage switching (12,000 volts and above). Emphasis will be placed on theory and hands-on application.

**A-ELE 75F Electrical Motors and Controls                      Units 2**

*Prerequisites: None.*

*Limitations on Enrollment: Indentured apprentice.*

*Advisories: None.*

This course is designed to present the application of wiring methods and control circuit design for power plants. The course includes interpreting electrical schematics, wiring diagrams, and troubleshooting control circuits.

**E M 21 Introductory Techniques for                      Units 3  
Electron Microscopy**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a beginning electron microscopy lecture and laboratory course dealing with the alignment and operation of the transmission electron microscope (TEM) as well as the preparation of particles and replicas for viewing on the TEM. The course includes individual training in the use of the TEM and techniques for photography. (CSU)

**E M 22 Ultramicrotomy for Electron                      Units 4.5  
Microscopy**

*Prerequisites: Reading level II or concurrent enrollment in reading; EM 21 with a grade of "C" or better or concurrent enrollment in EM 21.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a lecture and laboratory course which covers standard methods of preparing TEM (Transmission Electron Microscope) samples by ultramicrotomy. (CSU)

**E M 28 Biological Ultrastructure                      Units 2**

*Prerequisites: BIOL 1 with a grade of "C" or better and Reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to present specific information about the fine structure and function of cells and tissues at the ultrastructure level. Videos, slides, and micrograph examination are correlated with lectures so that students learn to recognize the fine structure of cells and tissues. (CSU)

**E M 30 Current Microscopies: Optics,                      Units 3  
Theory and Application**

*Prerequisites: E M 21 and PHYSICS 10, both with a grade of "C" or better.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to provide information related to the physical laws and applications of the various types of current microscopies. (CSU)

**E M 34 Introduction to Materials                      Units 4  
Electron Microscopy**

*Prerequisites: E M 21 with a grade of "C" or better; reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a lecture and laboratory course covering the areas of fractography, integrated circuits, and thin foil preparation. (CSU)

**E M 35 Physical Electron Microscopy                      Units 3.5  
Laboratory**

*Prerequisites: Reading level II or concurrent enrollment in reading; completion of EM 21 and EM 34 with a grade of "C" or better.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a lecture and laboratory course covering preparation, handling, and examinations of thin film electron transmission samples of metals. The course also covers interpretation of electron micrograph images and reciprocal lattice patterns in terms of electron diffraction in crystals. (CSU)

## ELECTRON MICROSCOPY

**E M 11 Photography for Laboratory                      Units 2  
Technicians**

*Prerequisites: Reading level II or concurrent enrollment in reading; E M 21 or concurrent enrollment in E M 21.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed for those students who wish to become laboratory technicians using photography as part of their work. Emphasis is placed on photography related to the optical microscope and electron microscope as used in medical, scientific, and industrial areas. (CSU)

**E M 15 Selected Topics: Electron                      Units 1-2  
Microscopy**

*Prerequisites: Reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to offer instruction in one of the specialized areas of electron microscopy not already covered by existing curricula. (CSU)

**E M 37 Advanced Techniques in Biological Electron Microscopy Units 3.5**

*Prerequisites: E M 21 and 22 with a grade of "C" or better; and reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a lecture and laboratory course which covers advanced techniques for biological specimen preparation in transmission electron microscopy (TEM). (CSU)

**E M 38 Scanning Electron Microscopy Units 3**

*Prerequisites: Reading level II or concurrent enrollment in reading; EM 21 with a grade of "C" or better.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to provide students with techniques necessary to prepare specimens, both organic and inorganic, for the scanning electron microscope. Students become familiar with the operating modes of the scanning electron microscope and the energy dispersive X-ray system. High resolution systems and computer imaging constitute part of the course. (CSU)

**E M 39 Advanced Biological Scanning Electron Microscopy Units 2**

*Prerequisites: EM 38 with a grade of "C" or better, and Reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a lecture and laboratory course which covers advanced preparation methods for biological specimens for observation in the scanning electron microscope (SEM). (CSU)

**E M 41 Analytical Scanning Electron Microscopy Units 3**

*Prerequisites: E M 38 with a grade of "C" or better; reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an advanced course in scanning electron microscopy. The course places emphasis on elemental analysis with both energy and wave-length dispersive systems as done on the scanning electron microscope. Quantitative computer assisted analysis constitutes a segment of the course. (CSU)

**E M 50H Special Studies: Electron Microscopy Units 1-2**

*Prerequisites: EM 35 or EM 37 with a grade of "C" or better; reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is available to qualified students who wish to explore further some phase of electron microscopy either in the biological or metallurgical field. Consent of the instructor and division chairperson is required. (CSU)

**E M 53 Electron Microscopy Equipment Maintenance Units 3**

*Prerequisites: EM 38 with a grade of "C" or better or concurrent enrollment in EM 38; Reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to provide information and training related to the upkeep and everyday maintenance of equipment usually found in an electron microscope laboratory. (CSU)

**E M 58 Digital Imaging for Microscopy Units 2**

*Prerequisites: EM 21, CS 18B, and Math 80 all with a grade of "C" or better.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a lecture and laboratory course which provides information and training related to digitizing, processing, measuring, and analyzing images specifically related to microscopy applications. Field trips are required. (CSU)

**E M 59 Advanced Projects in Electron Microscopy Units 2**

*Prerequisites: E M 35 or 37 with a grade of "C" or better, and Reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a lecture and laboratory course which includes special studies involving advanced concepts for electron microscopy. Field trips may be required. (CSU)

**E M 60 Transmission Electron Microscope (TEM) Alignment and Use Units 2**

*Prerequisites: E M 21 with a grade of "C" or better.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an advanced electron microscopy lecture and laboratory course specifically dealing with the alignment and operation of the transmission electron microscope (TEM). (CSU)

**E M 61 Scanning Electron Microscope (SEM) Alignment and Use Units 2**

*Prerequisites: E M 38 with a grade of "C" or better.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an advanced electron microscopy lecture and laboratory course specifically dealing with the alignment and advanced operation of the scanning electron microscope (SEM). (CSU)

**E M 62 Focused Ion Beam (FIB) Operation and Use Units 2**

*Prerequisites: E M 38 with a grade of "C" or better.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an advanced microscopy lecture and laboratory course specifically dealing with the alignment and operation of the focused ion beam (FIB) instrument. (CSU)

**E M 75 Selected Topics: Units 1-2**  
**Electron Microscopy**

*Prerequisites: Reading level II or concurrent enrollment in reading. Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to offer instruction in one of the specialized areas of electron microscopy not already covered by existing curricula.

**E M 79 Applied Microscopy Principles Units 1-3**

*Prerequisites: E M 21 with a grade of "C" or better.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to prepare students to help other students in hands-on microscopy procedures. Students learn how to assist other students in "hands on" applications. Students perform as microscopy laboratory assistants applying learned material and performing various microscopy-related tasks as directed by an instructor or lab supervisor. This course may be repeated up to a total of 6 units.

## ELECTRONIC TECHNOLOGY

**ELECT 1 Introduction to Technical Programs Units 2**

*Prerequisites: Reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a hands-on introduction to a variety of skilled trades including auto and diesel mechanics, carpentry, electrical wiring, electronics, sheet metal, computer-aided drafting, hydraulics, welding and HVAC (heating, ventilating and air-conditioning). Employers, apprenticeship representatives, and experienced tradeswomen and tradesmen provide practical information about working in technical occupations. Students are assisted in developing career goals and introduced to tool safety. (CSU)

**ELECT 10 Fundamentals of Electronics Units 2.5**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an introduction to the theory and practical knowledge necessary for students to enter the electronics program. (CSU)

**ELECT 11 AC and DC Network Analysis Units 4.5**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to present the passive components in electronics from atomic structure through resonance. Laboratory exercises are utilized to familiarize students with basic electronics test equipment and simple DC and AC circuits. (CSU)

**ELECT 12 Solid State Devices Units 6**

*Prerequisites: Reading level II or concurrent enrollment in reading; ELECT 11.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to present the theory, operation, and application of solid-state devices. The course stresses the application of bipolar transistors, field effect transistors, opto-devices, and the thyristor family in rectifier amplifiers, detectors, and other basic systems. Laboratory exercises are utilized to reinforce the theory. (CSU)

**ELECT 13A Integrated Circuits Units 4.5**

*Prerequisites: Reading level II or concurrent enrollment in reading; ELECT 11.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to introduce students to digital devices and their applications. Students explore a variety of these devices and learn the theory and application of major groups. Students are prepared for advancement to microprocessor and microcomputer training. (CSU)

**ELECT 14A Electronic Troubleshooting Units 3**

*Prerequisites: Reading level II or concurrent enrollment in reading; ELECT 11.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an introduction to the practical repair of electronic equipment. Topics include trouble-shooting, disassembly and assembly, soldering, parts ordering, and the writing of maintenance reports. (CSU)

**ELECT 14B Advanced Electronics Troubleshooting Units 3**

*Prerequisites: Reading level II or concurrent enrollment in reading; ELECT 14A.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to allow students to continue the development of skills necessary to troubleshoot electronics equipment. Emphasis in training is placed on self-study and hands-on experience. (CSU)

**ELECT 14C Troubleshooting Computers Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to allow students to develop the skills necessary to troubleshoot computers. Emphasis in training is placed on self-study and hands-on experience. (CSU)

**ELECT 15 Selected Topics: Electronics Technology Units 1-2**

*Prerequisites: Reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to offer instruction in one of the specialized areas of electronics technology not already covered by existing curricula. (CSU)

**ELECT 16 Introduction to Microprocessors Units 4**

*Prerequisites: Reading Level II or concurrent enrollment in reading; ELECT 13A.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to be an entry level study of the microprocessor and the necessary machine language to control all functions. Peripheral hardware and interface techniques are introduced through laboratory experimentation. Industrial process control is developed as a teaching medium to give application to the principles learned. (CSU)

**ELECT 50H Special Studies: Electronics Technology Units 1-2**

*Prerequisites: Reading level II or concurrent enrollment in reading; ELECT 11, 12, and 13.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is open to students qualified to do advanced work in the field. The course includes research, directed reading, field work, or other advanced study, and the course may be repeated for a maximum of four units. (CSU)

**ELECT 79 Electronics Mathematics Units 3**

*Prerequisites: Math level II or concurrent enrollment in math.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to cover mathematics normally used in electricity and electronics courses. The course starts with whole numbers, fractions, powers of 10, square roots, vectors, and logarithms, and it covers the portion of algebra and trigonometry used in electrical and electronic formulas.

## ENGINEERING

**ENGR 1 Introduction to Engineering and Technology Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an introduction to the engineering profession and processes used by engineers and technologists. Computer applications are used to demonstrate the problem-solving techniques used by engineers and technologists. This course is designed for all students considering career possibilities in engineering and/or engineering technology. (CSU)

**ENGR 2 Engineering Graphics Units 4**

*Prerequisites: E TECH 12 with a grade of "C" or better.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to encompass the principles of orthographic drawing, descriptive geometry applications, and graphical analysis. Students demonstrate documentation of engineering problems using freehand drawing, instrument drawing, computer-aided drafting, and three-dimensional modeling. (CSU, CAN ENGR 2)

**ENGR 4 Engineering Materials Units 3**

*Prerequisites: CHEM 1A.*

*Corequisites: None.*

*Limitation on Enrollment: None.*

*Advisories: None.*

This course is an introduction to the properties of engineering materials and their relation to the internal structure of materials. Topics include atomic structure and bonding, crystalline structures, phases and phase diagrams, metals, polymers, ceramics, composites, mechanical deformation and fracture, structural control and influence of properties, and materials naming and designating systems as well as exposure to the corrosive, electrical, and magnetic properties of materials. (CSU, CAN ENGR 4)

**ENGR 6 Engineering Circuit Analysis Units 4**

*Prerequisites: MATH 4 and PHYSICS 4C or concurrent enrollment.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to emphasize the solution of equations arising from the applications of Kirchhoff's Laws and Thevenin's Theorem to direct current (DC) and alternating current (AC) circuits. Topics include mesh and nodal analysis, periodic forcing functions, phasors, frequency response, natural and complete response, dependent sources, and the characteristics of operational amplifiers. Laboratory experiments are used to provide experiences and examples of theoretical concepts covered in the course. (CSU)

**ENGR 8 Statics Units 3**

*Prerequisites: MATH 2 with a grade of "C" or better; PHYSC 4A or concurrent enrollment in PHYSC 4A.*

*Limitation on Enrollment: None.*

*Advisories: None.*

This course is a study of rigid bodies in static equilibrium when acted upon by forces and couples in two-dimensional and three-dimensional space. Included are equilibrium of rigid bodies, trusses, frames, and machines, as well as the calculation of centers of mass, centroids, friction, distributed forces, beams, shear and moment diagrams, and moments of inertia. (CSU, CAN ENGR 8)

**ENGR 10 Surveying Units 3**

*Prerequisites: MATH 31, MATH 36, or MATH 87; each with a grade of "C" or better.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an introduction to surveying fundamentals including the use and care of surveying instruments such as: steel tape, engineer's level, transits, theodolites, and total stations. Applications include horizontal and vertical measurements, layout, and both traverse and area computations. Surveying mapping is introduced. (CSU, CAN ENGR 10)

**ENGR 15 Selected Topics: Engineering Units 1-2**

*Prerequisites: Reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to offer instruction in one of the specialized areas of engineering not already covered by existing curricula. (UC, CSU)

**ENGR 20 Surveying Units 3**

*Prerequisites:* MATH 31, MATH 36, or MATH 87; each with a grade of "C" or better.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is designed for four-year engineering and technology transfer students. Topics include the fundamental methods of surveying field and office work required in traverses, engineering construction projects, photogrammetry, route surveying, and property delineation. (CSU)

**ENGR 21 Applied Basic Programming for Technology Units 3**

*Prerequisites:* Reading level II or concurrent enrollment in reading; MATH 31, 36, or 87, each with a grade of "C" or better, or concurrent enrollment in MATH 31 or 36 or 87.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is designed to emphasize the computational power of the programming language BASIC for technical problem solving. The course offers programming applications in science and technology related to the electrical, electronic, civil, and mechanical engineering areas. Microcomputers are used. No prior programming experience is needed. (CSU)

**ENGR 27 Engineering FORTRAN Units 3**

*Prerequisites:* MATH 20, 31, 36, or 87, each with a grade of "C" or better.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is an introduction to the development of computer programs in the FORTRAN programming language. The course includes input-output processing, arithmetic calculations, and the use of logical expressions. Computer programs are assigned to assist students in developing competency in the language. This course is designed primarily for mathematics and engineering students. (UC, CSU)

**ENGR 46 Electronic Drafting for Technicians Units 3**

*Prerequisites:* Reading level II or concurrent enrollment in reading.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is intended for electronics technology program students and covers conventional electronics drafting practices. Specific topics will include symbology, dimensioning, units and terminology, block diagrams, logic diagrams, schematics, integrated circuits, wiring diagrams, packaging, and printed circuit board layout. (CSU)

**ENGR 50H Special Studies: Engineering Units 1-2**

*Prerequisites:* Reading level II or concurrent enrollment in reading; completion of two semesters of engineering classes with a grade of "B" or better and presentation of a project acceptable to the instructor and division chairperson.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is offered to any student qualified to do advanced work in engineering. Projects and assignments must be arranged and be approved by the instructor and the division chairperson before enrolling in the course. The course may be repeated for a maximum of four units. (UC, CSU)

**ENGR 58B AutoCAD Customization Units 2**

*Prerequisites:* Reading level II or concurrent enrollment in reading; ENGR 58A or ARCH 58A with a grade of "C" or better.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is designed to cover advanced applications and customization of AutoCAD software. Topics covered include blocks and attributes, script files, shape files, tablet menu modification, screen menu modification, three dimensional modeling, and use of AutoLISP programming language. (CSU)

**ENGR 58C Computer Aided Drafting Projects Units 1**

*Prerequisites:* Reading level II or concurrent enrollment in reading; ARCH 58A or ENGR 58A.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is designed to allow students to apply AutoCAD to their area of specialization. Students select individual projects applicable to their discipline. The instructor provides individualized instruction as necessary. (CSU)

**ENGR 58D AutoCAD Three Dimensional Modeling Units 2**

*Prerequisites:* Reading level II or concurrent enrollment in reading; ENGR 58A, or ARCH 58A, with a grade of "C" or better.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is designed to cover construction of three dimensional models using AutoCAD software. Topics covered include wireframe, surface, and solids modeling. (CSU)

**ENGR 58E AutoLISP Programming Units 2**

*Prerequisites:* Reading level II or concurrent enrollment in reading; ENGR 58A, or ARCH 58A, with a grade of "C" or better.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is designed to cover programming using AutoLISP, AutoCAD's applications customization language. Topics covered include programs using simple sequence, branching, and looping structures. AutoLISP are also used to access and change the drawing database. A previous course involving computer logic or programming is recommended. (CSU)

**ENGR 69V Internship: Engineering Technology Units 1-8**

*Prerequisites:* None.

*Limitations on Enrollment:* The student must enroll in a course that is directly related to the engineering technologies internship. The student must enroll in a minimum of 7 units during the semester including internship units. For summer session, the student must enroll in one related course in addition to internship. The combined total number of units a student may take in internship, work experience, and occupational practice may not exceed a maximum of 16 units. Participation requires submission and approval of internship program objectives and an employer internship agreement.

*Advisories:* GUID 30, 31, 32, 33.

This course is designed for students participating in an occupational internship in engineering technologies. Application of discipline-related skills and knowledge of Secretaries Commission on Achieving Necessary Skills (SCANS) competencies is emphasized. Each student is engaged in a specific research project or on-the-job learning activities under the supervision of a worksite supervisor and a college internship instructor. (CSU)

**ENGR 72A Introduction to Human Powered Vehicle Design and Construction Units 1**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to provide the study of the design, analysis, construction, testing, and documentation of a human-powered vehicle.

**ENGR 72B Beginning Human Powered Vehicle Design and Construction Units 1**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to provide the study of the design, analysis, construction, testing, and documentation of a human-powered vehicle.

**ENGR 72C Intermediate Human Power Vehicle Design and Construction Units 1**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to provide the study of the design, analysis, construction, testing, and documentation of a human-powered vehicle.

**ENGR 72D Advanced Human Power Vehicle Design and Construction Units 1**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to provide the study of the design, analysis, construction, testing, and documentation of a human-powered vehicle.

**ENGR 73 Trade Technician Drafting Skills Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to provide students with the sketching and drafting skills required of technicians who work in the mechanically oriented trades. Topics include: orthographic projections, dimensioning, isometric views, sectioning, auxiliary views, assembly drawings, introduction to tolerances, surface finishes, threads, and welding.

**ENGR 75 Selected Topics: Engineering Units 1-2**

*Prerequisites: Reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to offer instruction in one of the specialized areas of engineering not already covered by curricula.

# ENGINEERING TECHNOLOGY

**E TECH 3 Engineering Drafting Skills Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to introduce the students to basic skills used in engineering drafting. Topics include sketching, proper use of equipment, orthographic projection, isometric views, geometric construction, and sectioning. Line quality, lettering, and accuracy are emphasized. An introduction to dimensioning, graphing, and the engineering design process is given. (CSU)

**E TECH 11 Engineering Drafting Units 3**

*Prerequisites: E TECH 3.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to expand the student's understanding of engineering drafting concepts. Topics include dimensioning, tolerancing, surface texture, notes, threads and fasteners, weld representation, gearing, cams, and assembly drawings. (CSU)

**E TECH 12 Computer-Aided Drafting Units 3**

*Prerequisites: E TECH 3 or ARCH 1; with a grade of "C" or better, or concurrent enrollment in ARCH 1.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to utilize Computer-Aided Drafting (CAD) software on microcomputer CAD systems to produce a variety of drawings. Students learn the function and operation of typical CAD system components. Some of the course work allows students to work in fields of individualized interest. (CSU)

**E TECH 20 Materials and Measurements Units 4**

*Prerequisites: MATH 80 with a grade of "C" or better.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed for technology students. The course gives the student a basic understanding of the structure and physical properties of materials such as metals, ceramics, polymers, composites, and electronic-related materials. Test procedures and instrumentation used in studying materials are covered. A variety of measuring techniques used in practice is included. (CSU)

**E TECH 31 Fundamentals of Civil Drafting Units 4**

*Prerequisites: E TECH 12 or ARCH 58A; MATH 80; all with a grade of "C" or better.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an introduction to conventional drafting practices used in typical civil engineering projects. Emphasis is placed on the drafting and understanding of subdivision mapping, structural plans, and structural details including steel, wood, masonry, and reinforced concrete structures. A complete project portfolio is developed. (CSU)

**E TECH 32 Technical Statics Units 3**

*Prerequisites:* MATH 31; or MATH 36; or MATH 87; with a grade of "C" or better.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is a study of both the theories and fundamentals of forces, their action, and distribution on and within objects at rest. (CSU)

**E TECH 34 Machine Drafting Units 3**

*Prerequisites:* E TECH 11; E TECH 12; both with a grade of "C" or better.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is designed to prepare students to draw detail and assembly drawings of machine parts using precision-dimensioning techniques. Topics include geometric tolerancing per American Society of Mechanical Engineers (ASME) Y14.5 standard, fits, paper gauging, detailed specifications, notes, material lists, and surface finishes. (CSU)

**E TECH 35 Machine Design Units 3**

*Prerequisites:* ENGR 2; E TECH 11; MATH 80; all with a grade of "C" or better.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is designed for students to apply the engineering design process and common applications of basic machine design principles. Topics covered include the engineering design process, materials used in engineering fabrications, manufacturing processes, stress analysis, tolerancing considerations, fasteners, permanent joints, shafts and couplings, bearings, belts and chains, gears, and clutches and brakes. (CSU)

**E TECH 37 Electronic Drafting Units 3**

*Prerequisites:* E TECH 12 or ARCH 58A.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is an introduction to conventional electronics drafting practices. Specific topics include symbology, dimensioning, pictorial illustrations, units and terminology, block diagrams, logic diagrams, schematics, integrated circuits, wiring diagrams, packaging and printed circuit board layout. (CSU)

**E TECH 41 Civil Drafting: Site Design and Improvement Units 4**

*Prerequisites:* E TECH 12; MATH 80; all with a grade of "C" or better.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is an introduction to the development and design of site plans, including parking, storm drainage systems, sewage piping, and site preparation. Students prepare a set of drawings with calculations and cost estimates for a site improvement plan. A complete project portfolio is developed. (CSU)

**E TECH 42 Technical Strength of Materials Units 3**

*Prerequisites:* ENGR 8 or E TECH 32.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is a study of internal stresses caused by external forces. The course presents both the theory and procedures required for the design of structural members such as truss members, beams, columns, connections, and machine parts, including shafts, linkages, and supporting systems. (CSU)

**E TECH 43 Principles of Fluid Mechanics Units 3**

*Prerequisites:* MATH 31, MATH 36, or MATH 87; each with a grade of "C" or better.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is an introduction to fluid theory, engineering problem solving techniques, and experimental laboratory procedures. The course includes technical concepts related to fluid definitions, fluid properties, hydrostatics, flow of ideal fluids, flow in pipes and open channels, and mechanical hydraulic systems. (CSU)

**E TECH 45 Practical Machine Design Units 3**

*Prerequisites:* E TECH 12; MECH 15; both with a grade of "C" or better.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is an introduction to basic machine problems. Course projects encompass engineering design fabrication, computer-aided drafting, manufacturing processes, and dimension verification and inspection. Topics covered include machine design, manufacturing systems and fabrication processes, machine drafting and tolerancing, and geometric dimensioning and tolerancing. (CSU)

**E TECH 46 Mechanical and Electrical Systems Units 3**

*Prerequisites:* E TECH 12 or ARCH 58A.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is an introduction to the fundamentals of mechanical and electrical building systems used in the construction industry. These fundamentals are applied in the design and drawing of engineering plans for mechanical and electrical systems required for building construction. (CSU)

**E TECH 47 Introduction to Industrial Control Systems Units 2**

*Prerequisites:* None.

*Limitation on Enrollment:* None.

*Advisories:* None.

This course is designed to include basic control systems for process machines and driven equipment used in industry. Topics include programmable controllers, basic electrical circuits, input devices, output devices, control diagrams, and specific programmable controller applications. (CSU)

**E TECH 70 Applied Surveying Units 3**

*Prerequisites:* MATH 80 with a grade of "C" or better.

*Limitations on Enrollment:* None.

*Advisories:* None.

This course is designed for engineering technicians. The course uses an applications-oriented approach in covering the methods of surveying field and office work related to traverses, horizontal measurements, elevations, and mapping.

**E TECH 72 Applied Statics Units 3**

*Prerequisites: MATH 80 with a grade of 'C' or better.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an applications-oriented approach to solving equilibrium problems dealing with the effect of forces acting on and within objects at rest.

**E TECH 73 Trade Technician Drafting Skills Units 3**

*Prerequisites: None.*

*Limitation on Enrollment: None.*

*Advisories: None.*

This course is an introduction to sketching and drafting skills required of technicians in mechanically-oriented trades. Topics include orthographic projections, dimensioning, isometric views, sectioning, auxiliary views, assembly drawings, introduction to tolerances, surface finishes, and threads.

**E TECH 80 Applied Surveying Units 3**

*Prerequisites: MATH 80 with a grade of "C" or better.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed for engineering technicians. The course uses an applications-oriented approach in covering the basic principles used in typical surveying field and office work related to property boundaries, construction projects, route surveying and photogrammetry.

**E TECH 82 Applied Strength of Materials Units 3**

*Prerequisites: MATH 80 with a grade of 'C' or better.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an applications-oriented approach in the study of internal stresses caused by external forces. The basic procedures followed in the design of structural members such as truss members, beams, columns, connections and machine parts, including shafts, linkages, and supporting systems are stressed.

**E TECH 83 Applied Fluid Mechanics Units 3**

*Prerequisites: MATH 80 with a grade of 'C' or better.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an applications-oriented approach in problem solving and laboratory work related to fluid definitions, fluid properties, hydrostatics, flow of ideal fluids, flow in pipes and open channels, and mechanical hydraulic systems.

## ENGLISH

**ENG 1A Written Communications Units 3**

*Prerequisites: Demonstrate competency in language skills through qualifying scores on Composition Assessment or a 'C' grade or better in ENG 79.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a transfer-level, college freshman English composition course comparable to those courses offered by the state university systems. (UC, CSU, CAN ENGL 2)

**ENG 1B Written Communications Units 3**

*Prerequisites: ENG 1A with a grade of "C" or better.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to require the writing of a substantial number of problem-solving essays. The course focuses on the development of critical thinking skills and the practice and application of these skills through close analysis of culturally diverse literature. The analysis is based on practice in reading, discussing, and writing. (UC, CSU, CAN ENGL 4)

**ENG 1C Written Communications Units 3**

*Prerequisites: ENG 1A and 1B with a grade of "C" or better.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to allow students to continue practicing the art of advanced expository and critical writing based on college-level readings. This course is required for students transferring to UC Berkeley. (UC, CSU)

**ENG 1D Critical Composition Units 3**

*Prerequisites: ENG 1A with a grade of "C" or better.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed for students who wish to transfer to a four-year college or university. The course emphasizes the development of critical thinking skills through instruction in essay writing by focusing on the principles of logic and developing the abilities to analyze, to criticize, and to reach reasoned conclusions. Critical thinking is refined by close reading of prose to distinguish fact from value judgment and knowledge from mere opinion. Students are required to write between 6000 and 8000 words divided among several essay assignments. (CSU, UC)

**ENG 1E Thematic Expository Composition Units 3**

*Prerequisites: English 1A with a grade of "C" or better.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to give students continued practice in advanced expository and critical writing. The course emphasizes the development and integration of analytical and critical reading, writing, and research skills. Writing assignments are based on college-level readings as well as personal, field, and library research. Readings are organized around a single theme and represent a variety of genres and cultures. This course is for students transferring to CSU, Sacramento. (CSU)

**ENG 15 Selected Topics: English Units .5-2**

*Prerequisites: Reading level II or concurrent enrollment in reading level I.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to offer specialized topics related to the teaching of critical reading and writing skills. Specific topics appear in the semester schedule of courses. (CSU)

**ENG 25 Reading Efficiently Units 1**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is for engineering and technical students who wish to improve their reading ability to meet the demands of college and of their respective professions. (CSU)

**ENG 26 Composition Laboratory Units 2***Prerequisites: Level III composition.**Limitations on Enrollment: None.**Advisories: None.*

This course is designed to provide special writing topics for students who would benefit from additional writing experience in adjunct with ENG 1A. Problems in critical thinking, style, mood, and tone are addressed as well as mechanical skills. (CSU)

**ENG 27 Rapid Reading Units 2***Prerequisites: None.**Limitations on Enrollment: None.**Advisories: None.*

This course is designed for students who wish to assure themselves of a reading ability that will meet the demands of college and the professions. (CSU)

**ENG 30 The Film as Literature Units 3***Prerequisites: None.**Limitations on Enrollment: None.**Advisories: None.*

This course is a study of the cinema genre with emphasis on artistic and literary values. (UC, CSU)

**ENG 32A Seminar in Communications: Units 1-2  
Tutor Center***Prerequisites: Grade "B" or better in the appropriate content area.**Limitations on Enrollment: None.**Advisories: None.*

This course is designed for students who wish to work as content tutors at San Joaquin Delta College. Emphasis in training is placed on study skills, learning styles, problem solving, tutoring techniques, interpersonal relationships, methods and materials. This course may be repeated for a maximum of four units. (CSU)

**ENG 32B Seminar in Communications: Units 1-2  
Writing Laboratory***Prerequisites: Grade "B" or better in the appropriate content area.**Limitations on Enrollment: None.**Advisories: None.*

This course is designed for students who wish to work as content tutors at San Joaquin Delta College. Emphasis in training is placed on study skills, learning styles, problem solving, tutoring techniques, interpersonal relationships, methods and materials. This course may be repeated for a maximum of four units. (CSU)

**ENG 32C Seminar in Communications: Units 1-2  
Learning Assistance Center***Prerequisites: Grade "B" or better in the appropriate content area.**Limitations on Enrollment: None.**Advisories: None.*

This course is designed for students who wish to work as content tutors at San Joaquin Delta College. Emphasis in training will be placed on study skills, learning styles, problem solving, tutoring techniques, interpersonal relationships, methods and materials. This course may be repeated for a maximum of four units.

**ENG 32E Seminar in Communications: Units 1-2  
Basic Skills Mathematics Laboratory***Prerequisites: Grade "B" or better in the appropriate content area.**Limitations on Enrollment: None.**Advisories: None.*

This course is designed for students who wish to work as content tutors at San Joaquin Delta College. Emphasis in training is placed on study skills, learning styles, problem solving, tutoring techniques, interpersonal relationships, methods and materials. This course may be repeated for a maximum of four units.

**ENG 32I Seminar in Communications: Units 1-2  
Learning Disability Laboratory***Prerequisites: Grade "B" or better in the appropriate content area.**Limitations on Enrollment: None.**Advisories: None.*

This course is designed for students who wish to work as content tutors at San Joaquin Delta College. Emphasis in training is placed on study skills, learning styles, problem solving, tutoring techniques, interpersonal relationships, methods and materials. This course may be repeated for a maximum of four units.

**ENG 33A Advanced Learning Skills: Units 2  
Vocabulary Improvement***Prerequisites: None.**Limitations on Enrollment: None.**Advisories: None.*

This course is an advanced learning skills course designed to improve students' college-level vocabulary by word study, use of context clues, learning Greek and Latin roots, and affixes and structural analysis. (CSU)

**ENG 33B Advanced Learning Skills: Units 2  
Vocabulary Improvement***Prerequisites: None.**Limitations on Enrollment: None.**Advisories: None.*

This course is an advanced, accelerated course designed to help students improve spelling skills through the study of phonetic, historic, and linguistic patterns of the English language. (CSU)

**ENG 33C Advanced Learning Skills: Units 2  
Reading for Success in College***Prerequisites: None.**Limitations on Enrollment: None.**Advisories: None.*

This course is designed to enable students to improve their reading comprehension skills and prepare to meet the demands of college reading and studying. A variety of reading strategies are taught in order to enhance the students' ability to critically analyze college-level reading material. (CSU)

**ENG 33E Study Skills for Success in College Units 2***Prerequisites: None.**Limitations on Enrollment: None.**Advisories: None.*

This course is an advanced learning skills course designed to improve students' study skills. Topics include taking lecture notes, reading a textbook, and passing examinations. (CSU)

**ENG 33G Human Learning and Thinking Skills Units 2**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is a combination of theory and training. The basic theories which contribute to a model of the learning process are presented simultaneously with the training. The training portion of the course is designed to teach students how to learn more effectively. The training includes development of logical thinking, visual thinking, and mapping. (CSU)

**ENG 33H Memory and Cognitive Training Units 2**

*Prerequisites: ENG 33G.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to expand the students' ability to use the cognitive functions of both sides of the brain to actively orchestrate their own learning process. (CSU)

**ENG 34 The Rock Lyric as Literature: Practical Literary Criticism Units 3**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is an examination on three decades of American rock and roll lyrics and the social history which gave rise to them. Special emphasis is placed on the exploration of socio-historical context and the application of literary methodology. A historical survey of the American subcultures represented by thematic categories is analyzed. (CSU)

**ENG 35A Chicano Literature Units 3**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is a critical survey of Chicano literature from pre-Columbian, Mexican periods, to present U. S., Chicano, and Mexican-American period. No Spanish proficiency is required. (UC, CSU)

**ENG 36 Selected Topics: Literature Units 1-3**

*Prerequisites: Reading level II or concurrent enrollment in reading.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to permit the study of a topic in the field of literature which is not covered in other literature courses. (UC, CSU)

**ENG 37 Women in Literature Units 3**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is a study of women in literature with an emphasis on female archetypes in short fiction, drama, and poetry. (UC, CSU)

**ENG 38 Mythology Units 3**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is a reading and discussion of Greek, Roman, and Norse mythology that provides a background for the students' understanding of allusions, form, and content of recurring themes in modern literature as well as helping them to recognize the continued influence of mythological motifs on our fundamental customs, traditional beliefs, and values. (UC, CSU)

**ENG 39 Introduction to Folklore Units 3**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to introduce the student to examine the forms and functions of folklore which is that body of knowledge, those beliefs, and ways of behaving that have been handed down through tradition. These include games and rhymes, myths, legends, and folk songs. Students are required to create their own collection of folklore items as a semester project. (UC, CSU)

**ENG 40A Current Literature Units 3**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to acquaint students with themes of the contemporary novel. ENG 40A or ENG 40B may be taken separately. (UC, CSU)

**ENG 40B Current Literature Units 3**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to acquaint students with the contemporary short story and drama. ENG 40A or ENG 40B may be taken separately. (UC, CSU)

**ENG 41 Contemporary Poetry Units 3**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is a study of current and contemporary poetry that emphasizes the role of the poet as interpreter of 20th century man. Students submit original work to the instructor for evaluation. (UC, CSU, CAN ENGL 20)

**ENG 42A Survey of American Literature Units 3**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is a study of the forms and ideas in American literature with an emphasis on an understanding of the values and traditions which shape contemporary thought. ENG 42A or ENG 42B may be taken separately. (UC, CSU, CAN Eng14)

**ENG 42B Survey of American Literature Units 3**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is a study of the forms and ideas in American literature with an emphasis on an understanding of the values and traditions which shape contemporary thought (Mark Twain through contemporary authors). ENG 42A or ENG 42B may be taken separately. (UC, CSU, CAN ENGL 16)

**ENG 43A Masterpieces of European Literature Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a critical examination of enduring literary qualities found in European literature from the ancient world through the Renaissance. (UC, CSU)

**ENG 43B Masterpieces of European Literature Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a critical examination of enduring literary qualities in selected works of European literature from Enlightenment through Modernism. (UC, CSU)

**ENG 44A Creative Writing: Short Story Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is offered to students who are seriously interested in writing the short story. Emphasis is placed on the study of the craft of fiction and artistry employed by successful, established, published authors, and on constructive group criticism of manuscripts submitted by members of the course. Emphasis is on characterization, plot, and setting. (CSU, CAN ENGL 6)

**ENG 44B Creative Writing: Style Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a continuation of assistance to students who wish to develop refined creative writing skills. Emphasis is on the students' development of an individual style through control of voice, mood, tone, and point of view. (CSU)

**ENG 44C Creative Writing: Poetry Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is offered to students who are seriously interested in writing poetry. Emphasis is placed on the study of the craft of poetry and artistry employed by successful, established, published authors, and on constructive group criticism of poems submitted by members of the class. (CSU)

**ENG 44D Creative Writing: Play and Screen Writing Units 3**

*Prerequisites: Reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: ENG 1A.*

This course is offered to students seriously interested in writing stage plays or screenplays. Emphasis is placed on the study of the craft of writing for the stage or screen; the artistry employed by successful, established, published authors; and constructive group criticism of manuscripts submitted by members of the class. Emphasis is on plot, character, dialogue, and format. (CSU)

**ENG 45 The Reading of Shakespeare Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a study of the reading and interpretation of selected works of Shakespeare. (UC, CSU)

**ENG 46A Survey of English Literature Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a survey of English literature beginning with the Anglo-Saxon period and extending to the Age of Satire. (UC, CSU, CAN ENGL 8)

**ENG 46B Survey of English Literature Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an introduction to English writers and movements. Students are exposed to the study of Romanticism, Victorianism, and modern literature. (UC, CSU, CAN Eng10)

**ENG 47 The English Bible as Literature Units 3**

*Prerequisites: Reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a study of the characteristics and types of literature in the authorized King James version of the Bible. Emphasis is placed upon those literary qualities that count for the Bible's unique endurance in Western culture. (UC, CSU)

**ENG 50H Special Studies: English Units 1-2**

*Prerequisites: Reading level II or concurrent enrollment in reading; completion of survey course with a grade of 'B' or better and presentation of a project acceptable to the instructor and division chairperson.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is open to students qualified to do advanced work in the field. The course includes research, directed reading, field work, or other advanced study, and the course may be repeated for a maximum of 4 units. (UC, CSU)

**ENG 52 From Story to Screen Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to assist students to explore and identify the changes that occur when a story becomes a movie. Students read stories, primarily novels, read corresponding movie scripts, and watch movies analyzing the differences among the three. Students also adapt portions of stories into movie scripts. (UC, CSU)

**ENG 53 Freelance Writing Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to assist students in pursuing the development and publication of original writings. These may consist of fiction and non-fiction, including magazine and newspaper articles, short stories, poems, novels, plays, screenplays, television scripts, and photojournalism. (CSU)

**ENG 54 American Autobiography Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to offer an examination of autobiographical literature from a multi-cultural perspective with the emphasis on investigating and understanding the complexity and diversity of the American culture. (UC, CSU)

**ENG 55 Reading Plays: Critical Approaches Units 3**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to assist students in examining drama as a literary genre. Students read plays, identify components intrinsic to them, and analyze according to various critical approaches. (UC, CSU)

**ENG 56 Writers: Their Lives and Their Works Units 3**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to assist students in examining writers' works in light of their lives. Students read works of literature by a variety of authors and analyze them according to their biographical elements. Literature includes novels, short stories, plays, poetry, and essays. (CSU)

**ENG 57 Children's Literature Units 3**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is a study of both traditional and modern children's books from around the world. Students read, analyze, and evaluate great works of children's literature. (CSU)

**ENG 70A Basic Writing Skills: Beginning Units 1**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is for students needing skill development in writing sentences and paragraphs. Emphasis is placed on writing clearly and correctly for a given purpose. Units earned in this course do not count toward the associate degree.

**ENG 70B Basic Writing Skills: Intermediate Units 1**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is for students needing skill development in writing sentences and paragraphs. Emphasis is placed on writing clearly and correctly for a given purpose. Units earned in this course do not count toward the associate degree.

**ENG 70C Basic Writing Skills: Advanced Units 1**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is for students needing skill development in writing sentences and paragraphs. Emphasis is placed on writing clearly and correctly for a given purpose. Units earned in this course do not count toward the associate degree.

**ENG 71 Practical Grammar Units 1**

*Prerequisites: Reading level II or concurrent enrollment in reading.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is a lecture and demonstration course dealing with grammar and mechanics of the English language. The course is designed for students who plan to enroll or who are enrolled in ENG 1A or for any students who desire to improve their knowledge of the structure and usage of English.

**ENG 72 Technical Writing Units 3**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is for technical and industrial students and stresses those skills as required for communicating technical information in a clear, precise manner.

**ENG 73A Writing Laboratory: Beginning Units 2**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course, is designed to provide individualized writing practice in the paragraph and short essay for students of ENG 70C or for those with basic weaknesses in their written English or with limited English proficiency. The student's level of performance is determined and instruction starts at that point. Units earned in this course do not count toward the associate degree.

**ENG 73B Writing Laboratory: Advanced Units 2**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to provide individualized writing practice in the academic essay commonly used in colleges today, including the descriptive, expository, narrative and argumentative modes and the descriptive-critical review. Units earned in this course do not count toward the associate degree.

**ENG 77A Basic Reading Comprehension: English as a Second Language (VESL) Units 2**

*Prerequisites: Eligibility for ENG 84.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to increase students reading and comprehension skills, including identification to topic, main ideas, and supporting details. Three different populations served are Vocational English as a Second Language (VESL), technical areas, and general education. Each group is served in a specific section. Units earned in this course do not count toward the associate degree.

**ENG 79 Preparatory English Units 5**

*Prerequisites: Composition Level II or completion of ENG 70C with a grade of "B" or better, or completion of ENG 87 with a grade of "C" or better.*  
*Limitation on Enrollment: None.*  
*Advisories: None.*

This course is designed to prepare students to enter college level English composition. The emphasis in the course is on writing well-developed paragraphs in an organized essay and reviewing grammar and usage. This course satisfies the English requirement for the associate degree.

**ENG 79L Preparatory English Units 6**

*Prerequisites: Composition Level II or completion of ENG 70C with a grade of "B" or better, or completion of English 87 with a grade of "C" or better.*  
*Limitation on Enrollment: None.*  
*Advisories: None.*

This course is designed to combine preparatory English and a laboratory component to reinforce writing skills by giving students practice in mastering the essay. Students receive individual tutoring to reinforce principles of grammar and composition which have been introduced through lecture.

**ENG 80 English Language Development Units 7**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a basic survival English course emphasizing oral production of language. Students are required to take a core curriculum assigned according to their respective level. Units earned in this course do not count toward the associate degree.

**ENG 81 Basic English as a Second Language Units 7**

*Prerequisites: Level I placement based on the CELSA, a writing sample, and an oral interview.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a continuation of the survival English course that introduces students to the basic structures of written language. Units earned in this course do not count toward the associate degree.

**ENG 82 Introduction to English Language Development Units 7**

*Prerequisites: Placement is based on the CELSA, a writing sample, and oral interview.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed for students to work on pronunciation, vocabulary, sentence patterns, conversation practices, reading, and writing. ENG 86C, English-as-a-Second-Language (ESL) Laboratory is to be taken concurrently with ENG 82. Students are required to take the appropriate core curriculum assigned according to their respective skill level. Units earned in this course do not count toward the associate degree.

**ENG 83 Beginning English Language Development Units 7**

*Prerequisites: Credit in ENG 82 or placement based on the CELSA, a writing sample, and an oral interview.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed for students of all foreign backgrounds and abilities in English to work on such problems as pronunciation, vocabulary, sentence patterns, conversation practices, reading, and writing. ENG 86D, English-as-a-Second-Language (ESL) Laboratory must be taken concurrently with ENG 83. Students are required to take the appropriate core curriculum assigned according to their respective skill level. Units earned in this course do not count toward the associate degree.

**ENG 84 Intermediate English Language Development Units 6**

*Prerequisites: Credit in ENG 83 or placement based on the CELSA, a writing sample, and an oral interview.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed for students to work on pronunciation, vocabulary, sentence patterns, conversation practices, reading, and writing. ENG 86E, English-as-a-Second-Language (ESL) Laboratory must be taken concurrently with ENG 84. Students are required to take the appropriate core curriculum assigned according to their respective skill level. Units earned in this course do not count toward the associate degree.

**ENG 85 Advanced English Language Development Units 6**

*Prerequisites: Credit in ENG 84 or placement based on the CELSA, a writing sample, and an oral interview.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a two-part course in advanced ESL: a review of functional English grammar and basic sentence patterns, including frequent practice in both written and spoken expression; and instruction in reading comprehension skills, including frequent practice in systematic reading and analysis. ENG 86F, English-as-a-Second-Language (ESL) Laboratory must be taken concurrently with ENG 85. Students are required to take the appropriate core curriculum assigned according to their respective skill level. Units earned in this course do not count toward the associate degree.

**ENG 86A English as a Second Language Laboratory Units 1-3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an individualized English-as-a-Second-Language (ESL) laboratory. Audio-Visual materials, tutoring, and small-group instruction are available to aid students in developing language proficiency. Laboratory sections ENG 86A through F require concurrent enrollment in ENG 80, ENG 81, ENG 82, ENG 83, ENG 84, or ENG 85. ENG 86G through P are independent and individualized laboratory programs. Units earned in this course do not count toward the associate degree.

**ENG 86B English as a Second Language Laboratory Units 1-3**

*Prerequisites: Concurrent enrollment in ENG 81.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an individualized English-as-a-Second-Language (ESL) laboratory. Audio-visual materials, tutoring, and small group instruction are available to aid students in developing language proficiency. Units earned in this course do not count toward the associate degree.

**ENG 86C English as a Second Language Laboratory Units 1-3**

*Prerequisites: Concurrent enrollment in ENG 82.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an individualized English-as-a-Second-Language (ESL) laboratory. Audio-visual materials, tutoring, and small group instruction are available to aid students in developing language proficiency. Units earned in this course do not count toward the associate degree.

**ENG 86D English as a Second Language Laboratory Units 1-3**

*Prerequisites: Concurrent enrollment in ENG 83.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an individualized English-as-a-Second-Language (ESL) laboratory. Audio-visual materials, tutoring, and small-group instruction are available to aid students in developing language proficiency. Units earned in this course do not count toward the associate degree.

**ENG 86E English as a Second Language Units 1-3  
Laboratory**

*Prerequisites: Concurrent enrollment in ENG 84.  
Limitations on Enrollment: None.  
Advisories: None.*

This course is an individualized English-as-a-Second-Language (ESL) laboratory. Audio-visual materials, tutoring, and small group instruction are available to aid students in developing language proficiency. This is part of the Vocational-English-as-a-Second-Language (VESL) program. Units earned in this course do not count toward the associate degree.

**ENG 86F English as a Second Language Units 1-3  
Laboratory**

*Prerequisites: Concurrent enrollment in ENG 85.  
Limitations on Enrollment: None.  
Advisories: None.*

This course is an individualized English-as-a-Second-Language (ESL) laboratory. Audio-visual materials, tutoring, and small group instruction are available to aid students in developing language proficiency. Units earned in this course do not count toward the associate degree.

**ENG 86G English as a Second Language Units 1-3  
Laboratory**

*Prerequisites: None.  
Limitations on Enrollment: None.  
Advisories: None.*

This course is an independent and individualized English-as-a-Second-Language (ESL) laboratory. Units earned in this course do not count toward the associate degree.

**ENG 86H English as a Second Language Units 1-3  
Laboratory**

*Prerequisites: None.  
Limitations on Enrollment: None.  
Advisories: None.*

This course is an individualized and independent English-as-a-Second-Language (ESL) laboratory. Units earned in this course do not count toward the associate degree.

**ENG 86I English as a Second Language Units 1-3  
Laboratory**

*Prerequisites: None.  
Limitations on Enrollment: None.  
Advisories: None.*

This course is an independent and individualized English-as-a-Second-Language (ESL) laboratory. Units earned in this course do not count toward the associate degree.

**ENG 86J English as a Second Language Units 1-3  
Laboratory**

*Prerequisites: None.  
Limitations on Enrollment: None.  
Advisories: None.*

This course is an independent and individualized English-as-a-Second-Language (ESL) laboratory. Units earned in this course do not count toward the associate degree.

**ENG 87 Intermediate Writing Units 5**

*Prerequisites: Successful completion of ENG 70C at Level I.  
Limitations on Enrollment: None.  
Advisories: None.*

This course is designed to prepare students for ENG 79. Emphasis is placed on writing and editing of paragraphs and brief essays based on readings. Units earned in this course do not count toward the associate degree.

**FAMILY & CONSUMER  
SCIENCES**

**FCS 2 Life Management Units 3**

*Prerequisites: None.  
Limitations on Enrollment: None.  
Advisories: None.*

This course is designed to provide individuals with skills for understanding and using internal and external resources to function effectively in the present and future society. Major topics include effects of cultural forces and future trends on values, standards and goals, skills for decision-making, time, energy, stress, conflict management, and techniques for improving self-understanding and interpersonal relationships. (CSU)

**FCS 3 Home Management and Finance Units 3**

*Prerequisites: None.  
Limitations on Enrollment: None.  
Advisories: None.*

This course is designed to introduce basic home management principles that apply to personal and family finance. Study is given to services available to today's families and to the awareness of consumer problems related to family management. (CSU)

**FCS 5 Basic Nutrition Units 3**

*Prerequisites: None.  
Limitations on Enrollment: None.  
Advisories: None.*

This course is an introduction to basic nutrition. Properties of nutrients and foods are explored. Economic, sociological, and psychological factors that are influential in food choices are discussed. Emphasis is placed on the importance of good nutrition throughout the human life cycle. (CSU)

**FCS 6 Nutrition Units 3**

*Prerequisites: Reading level II.  
Limitations on Enrollment: None.  
Advisories: None.*

This course is a study of nutrition as a science and its application to human health and disease. The course provides an introduction to the roles of carbohydrates, fats, proteins, minerals, vitamins, and water in human nutrition. The course also includes an individual dietary study and evaluation based on the National Research Council's recommended dietary allowances. (CSU, CAN H EC 2)

**FCS 7 Healthful Eating Units 2**

*Prerequisites: Reading level II or concurrent enrollment in reading.*  
*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a focus on the elements needed to construct healthful eating habits in modern society. Students learn to evaluate the health value of food products, nutrient supplements, and herbs. Emphasis is placed on the skills needed for making successful changes in dietary habits and fitness. (CSU)

**FCS 8 Food Preparation Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an introduction to basic food principles with emphasis on preparation methods, product standards, functions of ingredients, and food purchasing. (CSU, CAN H EC 8)

**FCS 10 Interior Design Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a study of functional and aesthetic elements for residential interiors. Emphasis is placed on: principles and elements of design and the selection and organization of furnishings, floor and wall coverings, window treatments, lighting, and accessories. (CSU)

**FCS 11 Applied Interior Design Units 3**

*Prerequisites: FCS 10; reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a focus on the skills used by the interior designer including drafting, the use of architectural tools and techniques, space planning, client-designer relationships, and executing treatments for interiors. (CSU)

**FCS 12 History of Furniture Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an introduction to the history of furniture periods and styles from antiquity to the present, and it is designed to acquaint individuals with the necessary criteria to evaluate and analyze furniture. The importance of political, social, economic, and historical factors that influenced furniture styles are stressed. (CSU)

**FCS 13 Specifications and Professional Practices Units 3**

*Prerequisites: FCS 10; reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an introduction to the business, practical, and ethical aspects of the interior design profession. The course includes assessment on specifications, construction techniques, and installation processes, as well as the working relationship with craftspeople and tradespeople involved in the profession. (CSU)

**FCS 14 Lighting Design Units 3**

*Prerequisites: FCS 10; reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an introduction to lighting specifications, available equipment and fixtures, and aesthetic considerations from concept to complete installation. The course includes in-depth mathematical calculations used to determine the amount of lighting necessary to meet specific codes and clients needs. (CSU)

**FCS 15 Selected Topics: Family and Consumer Science Units 1-2**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to offer instruction in one of the specialized areas of family and consumer sciences not already covered by existing curricula. (CSU)

**FCS 19 Human Development Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to integrate the biological, cognitive, and psychosocial aspects of human development throughout the lifespan. The course is a study of the developmental tasks facing individuals at various points in the life cycle, and the ways social interaction and cultural institutions shape the development of the individual. It is designed as a foundation course for careers in educational, social service, psychological, and health fields. (CSU)

**FCS 21 Child Development Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an analysis of the dynamics of growth from infancy to adolescence. Cognitive, physical, and social-emotional development are discussed. Special emphasis is placed on psychoanalytic, behaviorist, and cognitive theories. (CSU, CAN H EC 14)

**FCS 22 Adolescent Development Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an analysis of the physical, cognitive, and social-emotional growth from puberty to adulthood. The course covers the major social roles the adolescent is called upon to play in family, peer group, school, and the larger socio-cultural environment. Special attention is given to the psycho-sexual roles of men and women, the young person's choices of a career and lifestyle, the difficulties in communication between generations, and the transition from childhood to the full role of adult. (CSU)

**FCS 23 Marriage and the Family Units 3**

*Prerequisites: Reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an interdisciplinary approach to marriage and family interpersonal relationships, changing family roles, sexuality, cultural diversity of families, the family life cycle, parenthood, and contemporary family issues. Special emphasis is placed on making choices, communication in relationships, understanding flexibility in family structures, and resolving interpersonal problems. (CSU, CAN H EC 12)

**FCS 24 Adult Development and Aging Units 3**

*Prerequisites: Reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an interdisciplinary introduction to the biological, psychological, sociological, and economic characteristics of the adult and aging population. The course investigates life satisfactions and problems of the mature and aged, related resources and services, and contemporary issues. (CSU)

**FCS 25 Studying and Observing Children Units 2**

*Prerequisites: FCS 21 or concurrent enrollment; reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is of interest to students considering careers working with children. The course is designed to increase students understanding of methods used to observe and record children's growth and development. Time is spent observing, recording, and analyzing the behavior of children as they interact with teachers and peers. Skills needed for working with children are reviewed. (CSU)

**FCS 26 Child, Family, and Community Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to examine the effects that family and community have on a child's development. Interaction between the child, family, peers, school, and community is explored. (CSU)

**FCS 27 Human Development Community Service Practicum Units 2**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to provide students with knowledge of services available to children and families through the various child and family service agencies. As a result of class discussions and volunteering in agencies, students gain practical work experience, in-depth knowledge of the services provided by the agencies, and information regarding career opportunities. (CSU)

**FCS 28 Health and Safety in Child Care Units 2**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed for teachers and child care providers who work in child development centers or family day care homes. Health and safety issues in child care are identified. Licensing regulations pertaining to prevention of infectious disease, recognizing signs of child illness, preparation for emergencies, and the caregiver's responsibility for children's health are discussed. (CSU)

**FCS 29 Early Childhood Experiences: Arts and Sciences Units 3**

*Prerequisites: FCS 21; reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an introduction to the early childhood education curriculum in creative arts, science, mathematics, health, nutrition, music, creative movement, dramatic play, manipulative materials, and outdoor activities. The course includes the planning, preparation, presentation, and evaluation of learning for young children. (CSU)

**FCS 30 Early Childhood Experiences: Language Arts Units 3**

*Prerequisites: FCS 21; reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an introduction to the language arts curriculum in early childhood education and the planning, preparation, presentation, and evaluation of language experiences for young children. Focus is on the development of a positive attitude toward books, reading, verbal expression, and listening skills. (CSU)

**FCS 31A ECE Theory: Working With Children Units 3**

*Prerequisites: FCS 21; reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to prepare students to teach in various types of Early Childhood Education programs. Emphasis is on how a teacher can stimulate healthy growth and a positive self-image in children 2 1/2 to 5 years. The history of and current trends in ECE are discussed. (CSU)

**FCS 31B ECE Theory: Early Cognitive Learning Units 3**

*Prerequisites: FCS 31A; reading level II or concurrent enrollment in reading.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to prepare students to teach in various types of early childhood education programs. The course provides a study of how young children learn. The theories of Piaget, Montessori, and Skinner are emphasized as a basis for curriculum planning. (CSU)

**FCS 32A Early ECE Practicum Units 3**

*Prerequisites: FCS 31A or concurrent enrollment; reading level II or concurrent enrollment in reading; all students must obtain medical verification of absence of TB (this is required by State law).*

*Limitation on Enrollments: None.*

*Advisories: None.*

This course is designed to help students prepare to teach in various types of early childhood education programs. Observing, planning, and implementing learning experiences are exercised as a student teacher in the College's preschool. (CSU)

**FCS 32B ECE Practicum Units 3**

*Prerequisites: FCS 32A.*

*Limitations on Enrollment: Students must obtain medical verification of absence of T.B., complete a criminal record clearance, a health evaluation, and be fingerprinted as required by State law.*

*Advisories: None.*

This course is designed to help students prepare to teach in various types of early childhood education programs. Observing, planning, implementing, and evaluating learning experiences are exercised as a student teacher in the College's preschool. Writing learning objectives and assessing children's behavior are stressed. (CSU)

**FCS 33 Infant Development and Caregiving Units 3***Prerequisites: None.**Limitations on Enrollment: None.**Advisories: None.*

This course is designed to provide an examination of the components of quality infant caregiving. Individual differences, developmental stages, health and safety, state licensing requirements, and planning the environment are discussed. The impact of cultural differences and parental attitudes is explored. (CSU)

**FCS 34 Children With Special Needs Units 3***Prerequisites: None.**Limitations on Enrollment: None.**Advisories: None.*

This course is designed to increase skills in identifying, screening, and referring children with special needs. Strategies for meeting individual needs in an early childhood setting are examined. (CSU)

**FCS 35 Nutrition and Food for Children Units 3***Prerequisites: None.**Limitations on Enrollment: None.**Advisories: None.*

This course is designed to emphasize methods of preparing food for children and with children and to encourage good eating habits. Basic nutrition for the childhood years and the use of food as a teaching tool in various curriculum areas are discussed. (CSU)

**FCS 36 Activities and Environments for School Age Child Care Units 3***Prerequisites: None.**Limitations on Enrollment: None.**Advisories: None.*

This course is designed to focus on the planning, implementation, and evaluation of creative and educational activities suitable for school-age children in child-care programs. Emphasis is placed on providing experiences which stimulate growth, discovery, and learning. (CSU)

**FCS 37 Administration of Child Care Programs Units 3***Prerequisites: None.**Limitations on Enrollment: None.**Advisories: None.*

This course is designed for current or potential directors and owners of public and private nursery schools and child care programs. Topics such as staff selection and supervision, licensing requirements, and employment law and budget are covered. (CSU)

**FCS 38 Development and Financial Management of Child Care Programs Units 3***Prerequisites: None.**Limitations on Enrollment: None.**Advisories: None.*

This course is designed to cover fiscal matters crucial to the start-up and success of preschool and child care programs. Principles of financial management, personnel management, and licensing requirements are covered. This course is of interest to child-care administrators and individuals interested in the development and management of child-care programs. (CSU)

**FCS 40 Introduction to Fashion Merchandising Units 3***Prerequisites: None.**Limitations on Enrollment: None.**Advisories: None.*

This course is an introduction to marketing of fashion goods from raw materials to production and retail distribution. Methods of predicting consumer demand, buying, pricing, promoting, and coordinating accessories are analyzed. (CSU)

**FCS 41 Fashion Product Knowledge Units 3***Prerequisites: None.**Limitations on Enrollment: None.**Advisories: None.*

This course is designed to increase the students knowledge of fashion as it relates to value, durability, versatility, and the price of goods in the market place. An in-depth analysis of apparel and accessories for women, men, and children is covered. (CSU)

**FCS 42 Textiles Units 3***Prerequisites: None.**Limitations on Enrollment: None.**Advisories: None.*

This course is an introduction to textiles which includes the study of fibers, yarn, fabric construction, coloring, and finishes. Emphasis is placed on fabric performance, serviceability, and the consumer's role in the textile field. (CSU, CAN H EC 6)

**FCS 43 Origins of Fashion Units 3***Prerequisites: None.**Limitations on Enrollment: None.**Advisories: None.*

This course is a survey of the history of clothing as reflected in political, economic, and social trends. Students trace the evolution of garments and the specific periods in which they were popular. (CSU)

**FCS 44 Clothing in Contemporary Society Units 3***Prerequisites: None.**Limitations on Enrollment: None.**Advisories: None.*

This course is a study of clothing and its relationship to culture, society, and the individual. The psychological and sociological influences of dress, the physical aspects of appearance, the elements and principles of design as they relate to clothing selection, and wardrobe coordination are discussed. (CSU, CAN H EC 20)

**FCS 45 Fashion Sales and Promotion Units 3***Prerequisites: None.**Limitations on Enrollment: None.**Advisories: None.*

This course is designed to acquaint students with different activities in fashion promotion. Promotional techniques covered include personal selling, fashion show, special events, advertising, and publicity. (CSU)

**FCS 46 Visual Merchandising Units 3**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to acquaint students with the basic techniques of effective visual merchandising, including history, terminology, types, components, and the structure of visual merchandising departments. Course activities include designing and constructing visual displays. (CSU)

**FCS 47A Clothing Construction Units 3**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to acquaint students with the selection and use of sewing equipment, fabric and patterns, interpretation and use of commercial patterns, pattern alterations, and construction techniques. Careers in the sewing industry are discussed. (CSU, CAN H EC 10)

**FCS 47B Clothing Construction Units 3**

*Prerequisites: FCS 47A.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to acquaint students with the application and evaluation of advanced clothing construction techniques, pattern alterations, and fitting. New and unique fashion fabrics and shaping materials are used. Emphasis is on pattern alterations and garment fitting. (CSU)

**FCS 48A Flat Pattern Design Units 3**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is a study of the technique of flat pattern-making and basic slopers for the bodice, sleeve, and skirt. Use of slopers as a foundation for designing patterns for shirts, blouses, and skirts are analyzed. (CSU)

**FCS 48B Fashion Apparel Units 3**

*Prerequisites: FCS 48A.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is a study of the development of patterns into slopers for the designing and styling of slacks, jumpsuits, culottes, and dresses. A basic sloper is used to design cut-in-one dresses. (CSU)

**FCS 49A Custom Clothing Techniques Units 2-3**

*Prerequisites: FCS 47A; reading level II or concurrent enrollment in reading.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to provide information on custom dressmaking and tailoring techniques which are found in luxury-priced designer apparel and haute couture designs. (CSU)

**FCS 49B Custom Clothing Techniques Units 3**

*Prerequisites: FCS 49A; reading level II or concurrent enrollment in reading.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is a study of practical applications of custom clothing techniques. Students design original garments using various custom clothing and haute couture techniques. (CSU)

**FCS 50H Special Studies: Family & Consumer Sciences Units 1-2**

*Prerequisites: Completion of entry level Family & Consumer Sciences courses with a grade of B or better; reading level II or concurrent enrollment in reading.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is open to any student qualified to do advanced work in the field of family and consumer sciences or closely related areas. The course includes research, directed reading, field work, or other advanced study, and the course may be repeated for maximum of four units. (CSU)

**FCS 51 Fashion Illustration Units 1.5**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to develop graphic skills necessary for students planning a fashion career. Emphasis is placed on capturing fashion styles and ideas and translating them to paper. (CSU)

**FCS 52 Fashion Field Study Units 2-4**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to enable students to apply merchandising principles to job situations. Experience gained as a result of this course familiarizes students with career options. (CSU)

**FCS 59 The Growing Years Units 2**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is a study of the development of the child from the prenatal period through adolescence. The course examines the interplay of biological factors, human interaction, social structure, and cultural forces in shaping the growing child. Major psychological theories are introduced and followed through various stages of development. (CSU)

**FCS 60A Parent Toddler Learning Units 2**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to introduce students to factors involved in planning quality care for toddlers. Basic principles of growth and development are discussed with emphasis on how caregivers can facilitate development of toddlers. (CSU)

**FCS 60B Parent Toddler Communication Units 2**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is an emphasis on adult involvement in the educational process. Course content includes early toddlerhood versus late toddlerhood, common adjustment problems of toddlers, learning through play, and transition from toddlerhood to preschool years. (CSU)

**FCS 61A Parent Child Learning****Units 2***Prerequisites: None.**Limitations on Enrollment: None.**Advisories: None.*

This course is an emphasis on the involvement of parents in the educational process. The course content includes preschool adjustment, preschool evaluation, setting learning goals, and home-school partnership. (CSU)

**FCS 61B Parent Child Communication****Units 2***Prerequisites: None.**Limitations on Enrollment: None.**Advisories: None.*

This course is an emphasis on parent involvement in the educational process. The course content includes stages of development, problems with preschoolers, evaluating learning environments, community resources, and kindergarten readiness. (CSU)

**FCS 62 Positive Parenting****Units 1***Prerequisites: None.**Limitations on Enrollment: None.**Advisories: None.*

This course is designed to help parents attain meaningful interaction with their children and to learn the skills of effective disciplines, open communication, and values clarification.

**FCS 63 Child Discipline****Units 1***Prerequisites: None.**Limitations on Enrollment: None.**Advisories: None.*

This course is designed to provide preschool teachers and parents with theory and techniques related to discipline. Topics include definitions of discipline, cultural differences, and practical approaches to discipline.

**FCS 70 Introduction to Family Day Care****Units 1***Prerequisites: None.**Limitations on Enrollment: None.**Advisories: None.*

This course is an introduction to current licensing regulations, insurance, and record keeping requirements which affect the operation of family day-care homes. Students are introduced to child development principles and age appropriate activities suitable to small groups and home environments.

**FCS 71 Children, Imagination, and Books****Units 1***Prerequisites: None.**Limitations on Enrollment: None.**Advisories: None.*

This course is recommended for students, parents, and educators who want a better understanding of how books contribute to the creativity, language, and emotional development of young children. Emphasis is placed on the selection and evaluation of children's literature and the ways to use books to enrich the lives of children.

**FCS 72 Play and Learning****Units 1***Prerequisites: None.**Limitations on Enrollment: None.**Advisories: None.*

This course is designed to examine play as a learning process of infants, toddlers, and preschoolers. Social, physical, and intellectual benefits of play are analyzed. The cross-cultural aspects of play are emphasized. This course is recommended for teachers, caregivers, and parents.

**FCS 73 Preschool Art****Units 1***Prerequisites: None.**Limitations on Enrollment: None.**Advisories: None.*

This course is a study of art experiences for children 2 to 6 years of age as it relates to the individual child's growth and development. The course is designed for preschool, child care, and kindergarten teachers teacher aides and parents.

**FCS 74 Preschool Science****Units 1***Prerequisites: None.**Limitations on Enrollment: None.**Advisories: None.*

This course is designed to help parents and those working with children in exploring children's environments. Science education theory and practical activities are presented.

**FCS 75A Introduction to Training Procedures for Autistic Children****Units 3***Prerequisites: FCS 21.**Limitations on Enrollment: None.**Advisories: None.*

This course is designed to introduce students to the roles and responsibilities of trainers of autistic children. Students gain an understanding of basic training procedures and they have the opportunity to observe and assist in the implementation of those procedures. The biological basis of learning, challenges faced by an individual with autism, and skills needed to function in a learning situation are discussed.

**FCS 75B Working with Autistic Children****Units 3***Prerequisites: FCS 75A.**Limitations on Enrollment: None.**Advisories: None.*

This course is designed to provide students with knowledge of advanced training procedures for autistic children. Advanced training procedures and methods of applying these procedures are discussed and demonstrated. Issues of reinforcement, contingencies, stimulus control, generalization, fluency, delay of reinforcement, and functional analysis are discussed. Successful completion of the course prepares students as trainers of autistic children.

**FCS 76 Early Childhood Education Mentor Teacher****Units 2***Prerequisites: None.**Limitations on Enrollment: None.**Advisories: None.*

This course is designed to prepare early-childhood-education students to become mentor teachers. Methods and principles of supervising and evaluating student teachers, new teachers, volunteers, and other adults in an early childhood classroom are studied. Emphasis is on the various roles of an early-childhood-education mentor teacher.

**FCS 77 Adapting Activities & Toys for Children with Exceptional Needs Units 1**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to focus on adapting common toys, activities, and environment for children aged infancy to six years with exceptional needs. The course is concentrated on adapting toys and activities designed to develop children's communication through social and emotional, physical, and cognitive skills. The course is designed for child-care providers, preschool and kindergarten teachers, teachers aides, and parents.

**FCS 78 Child Day Care: Nutrition and Meal Planning Units 2**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to teach child care providers their role and responsibilities in providing meals to children which comply with legislature and budgetary parameters. Topics covered include children's nutrition, menu planning, cost analysis, safety and sanitation.

**FCS 80 Selected Topics: Family and Consumer Sciences Units 1-2**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to offer instruction in one of the specialized areas of family and consumer studies not already covered by existing curricula.

**FCS 81 Wardrobe Planning Units 1**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to examine factors that influence wardrobe planning including color, texture, pattern design, and figure types. Purchasing guidelines and clothing fit are also included.

**FCS 82 Sewing for Children Units 0.5**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to place emphasis on sewing techniques that produce durable, comfortable, attractive, and economical children's clothes. Selection of patterns, fabric and notions; construction methods and special techniques for children's clothing will be covered in this course.

**FCS 90 Nutrition and Cooking Skills Units 1.5**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed for individuals with developmental disabilities seeking independent living status. Topics covered include cooking techniques and pertinent nutrition information.

**FCS 91 Medical Nutrition Therapy Units 3**

*Prerequisites: FCS 6.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to increase the student's knowledge of the use of foods and nutrients for the prevention and treatment of diseases such as diabetes mellitus, hypertension, osteoporosis, vascular disease, and cancer. Enteral and parenteral delivery of nutrition are reviewed. Nutritional concerns related to maternal and child health are covered. Emphasis is placed on application of knowledge to patient care. This course is suited for students planning a career in nursing, other health professions, and food service in health care institutions.

**FCS 93V Work Experience: Family and Consumer Science Units 1-8**

*Prerequisites: None.*  
*Limitation on Enrollment: The student must enroll in a course that is directly related to the family and consumer studies work experience. The student must enroll in a minimum of 7 units during the semester including work experience units. For summer session, the student must enroll in one related course in addition to work experience. The combined total number of units a student may take in internship, work experience, and occupational practice may not exceed a maximum of 16 units. Participation requires submission and approval of work experience program objectives and an employer work experience agreements.*  
*Advisories: GUID 30, 31, 32, 33.*

This course is designed for students employed in family and consumer studies. The course objectives are developed by the students in consultation with their supervisor. Students are engaged in a specific research project or on-the-job learning activities under the supervision of a worksite supervisor and a college work experience instructor. To register, complete an application form available at the Applied Science and Technology Division office, Holt 140.

**FCS 98 Foster and Adoptive Parent Pre-Service Training and Assessment Units 2**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to introduce students to the roles and responsibilities of foster and adoptive parents. The specific steps required to become a licensed foster parent and the role of the professional child welfare team are discussed.

**FCS 99A Meeting the Developmental Needs of Children at Risk Units 1**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to enhance students understandings of the basic needs of children at risk. Techniques to enhance the growth and development of foster and adoptive children are presented.

**FCS 99B Sexual Development and Signs of Sexual Abuses Units 0.5**

*Prerequisites: None.*  
*Limitations on Enrollment: None.*  
*Advisories: None.*

This course is designed to enhance students understandings of development issues related to sexuality, to recognize sexual abuse, and the appropriate responses to children who have been abused. The focus of this course is upon foster and adoptive children.

**FCS 99C Supporting Relationships  
Between Children and Their Families** Units 0.5

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to identify the ongoing role birth families play in development of foster and adoptive children. Methods for involving birth families in meeting children's developmental needs are outlined.

**FCS 99D The Child Welfare Team** Units 0.5

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to identify the role of foster and adoptive parents as members of the child welfare team. Emphasis is on the development of skills needed to function as a team member.

**FCS 99E Nurturing Lifetime Relationships** Units 0.5

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to enhance the students understanding of the goals of foster and adoptive parenting. Methods of helping children achieve safe and nurturing lifetime relationships are discussed.

**FCS 99F Using Discipline to Protect and  
Nurture** Units 0.5

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to identify methods of discipline that can be utilized by foster and adoptive parents to protect, nurture, and meet the developmental needs of children.

**FCS 99G Promoting Children's Personal  
and Cultural Identity** Units 0.5

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to identify the importance of promoting the self-esteem of foster and adoptive children through personal history and culture. Techniques for promoting a positive sense of identity are emphasized.

**FCS 99H The Impact of Placement on  
Foster Families** Units 0.5

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to enhance foster parents' understanding of the effect fostering can have on families. Emphasis is placed on methods to manage change and minimize stress.

**FCS 99I The Impact of Chemical  
Dependency on Children and Families** Units 0.5

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to introduce students to the effects of chemical dependency on children and families. Emphasis is placed on the foster and adoptive experience.

## FIRE SCIENCE

**FIRE 1 Introduction to Fire Technology** Units 3

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an introduction to the philosophy and history of fire service, organization and function of local, county, state, federal, and private fire agencies, and a survey of professional career opportunities. (CSU)

**FIRE 3 Essentials of Firefighting** Units 3

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an introduction to the theory and fundamentals of fire behavior including portable extinguishers, rope and knots, ladders, forced entry, water supply, rescue hose, hose streams, fire strategy, and emergency rescue. (CSU)

**FIRE 5 Fundamentals of Fire Prevention** Units 3

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an introduction to the function of the Fire Prevention Bureau including inspections, surveying and mapping procedures, recognition of fire hazards, engineering and solution of the hazard, enforcement of the solution, and public relations as affected by fire prevention. (CSU)

**FIRE 6 Fire Protection Equipment  
and Systems** Units 3

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a review and study of portable fire extinguishing equipment, automatic sprinkler systems, protection systems for special hazards, detection systems, fire alarms, and standpipe systems. (CSU)

**FIRE 24 Firefighting Strategy and Tactics** Units 3

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a review of fire chemistry, equipment and manpower, basic firefighting strategy and tactics, and methods of attack and preplanning fire problems. (CSU)

**FIRE 28 Fire Hydraulics** Units 3

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a review of basic mathematics, the theory of water at rest in motion, engineering principle of formulas and mental calculations of fireground hydraulic problems including water supply problems, underwriters requirements for pumps, and rapid rule fireground operations. (CSU)

**FIRE 35 Fire Investigation Units 3**

*Prerequisites: Reading level II or concurrent enrollment in reading. Limitations on Enrollment: None. Advisories: None.*

This course is an introduction to arson and incendiarism, arson laws, types of incendiary fires, methods of determining fire cause, recognizing and preserving evidence, interviewing and determining witnesses, and court procedures and giving testimony. (CSU)

**FIRE 69V Internship: Fire Technology Units 1-8**

*Prerequisites: None. Limitations on Enrollment: The student must enroll in a course that is directly related to the fire technology internship. The student must enroll in a minimum of 7 units during the semester including internship units. For summer session, the student must enroll in one related course in addition to internship. The combined total number of units a student may take in internship, work experience, and occupational practice may not exceed a maximum of 16 units. Participation requires submission and approval of internship program objectives and an employer internship agreement. Advisories: GUID 30, 31, 32, 33.*

This course is designed for students participating in an occupational internship in fire technology. Application of discipline-related skills and knowledge of Secretaries Commission on Achieving Necessary Skills (SCANS) competencies is emphasized. Each student is engaged in a specific research project or on-the-job learning activities under the supervision of a worksite supervisor and a college internship instructor. (CSU)

**FIRE 72 Basic Fire Control: Firefighter II Module Units 11.5**

*Prerequisites: Reading level II or concurrent enrollment in reading. Limitations on Enrollment: None. Advisories: None.*

This course is designed to provide students with the knowledge and the skills to perform basic firefighter tasks. Topics include vehicle extrication, wildland fire control, hazardous materials, fire control of structures, vehicles, and the incident command system. Upon successful completion of this course, students receive certification as medical first responders and hazardous materials first responder. This course meets the requirement for State Fire Marshall certification as Fire Fighter 1.

**FIRE 74 Basic Fire Control: Driver and Operator Module Units 6.5**

*Prerequisites: Reading level II or concurrent enrollment in reading and a California Class "B" drivers license. Limitations on Enrollment: None. Advisories: None.*

This course is designed to provide students with the skills to operate fire apparatuses, fire pumps, and to become first-line supervisors. The course includes physical fitness, emergency vehicle operations, preventive maintenance, off-road operations, pump theory, hydraulics, and preliminary fire investigation. This course meets the requirements for State Fire Marshall certification as Driver Operator 1.

**FIRE 76 Heavy Fire Equipment Operation Units 6**

*Prerequisites: Reading level II or concurrent enrollment in reading; a valid Class A driver's license. Limitations on Enrollment: None. Advisories: None.*

This course is a series of training components to prepare students for operation and for maintenance of heavy fire suppression equipment. Students are trained in safety and operational procedures and fire tactics to make sound decisions during fire suppression and other emergency situations. The course also provides fundamental training for performance as Dozer Strike Team Leader.

**FIRE 79B Incident Management Units 1**

*Prerequisites: None; exempt from assessment testing. Limitations on Enrollment: None. Advisories: None.*

This course is designed to focus on effective emergency communications, capabilities of fire suppression resources, and estimation of fire strategy situations. Emphasis is on the application of fire control plans in simulated fire situations.

**FIRE 90 Selected Topics: Fire Technology Units 2**

*Prerequisites: None; exempt from assessment testing. Limitations on Enrollment: None. Advisories: None.*

This course is designed to offer instruction in fire technology not already covered by existing curriculum. The course includes newly enacted mandates of the State Fire Marshall and agency specific training and instruction needs. Units earned in this course do not count toward the associate degree.

**FIRE 91 Fire Fighter 1 Academy Units 8**

*Prerequisites: None. Limitations on Enrollment: Possession of a valid California Driver's License, medical certificate of fitness and felony disclaimer. Advisories: None.*

This course is a series of modularized training units designed to provide basic skills for in-service and pre-service fire-service personnel. The course satisfies the minimum requirements for Fire Fighter 1 of the Recruit Fire Academy as prescribed by the State of California, Office of the Fire Marshall and the State Board of Fire Services.

**FIRE 91V Work Experience: Fire Technology Units 1-8**

*Prerequisites: None. Limitation on Enrollment: The student must enroll in a course that is directly related to the fire technology work experience. The student must enroll in a minimum of 7 units during the semester including work experience units. For summer session, the student must enroll in one related course in addition to work experience. The combined total number of units a student may take in internship, work experience, and occupational practice may not exceed a maximum of 16 units. Participation requires submission and approval of work experience program objectives and an employer work experience agreement. Advisories: GUID 30, 31, 32, 33.*

This course is designed for students employed in fire science. The course objectives are developed by the students in consultation with their supervisor. Students are engaged in a specific research project or on-the-job learning activities under the supervision of a worksite supervisor and a college work experience instructor. To register, complete an application form available at the Applied Science and Technology Division office, Holt 140.

**FIRE 94 Advanced Fire Service Training Units 4**

*Prerequisites: FIRE 91 or equivalent; exempt from assessment testing.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to provide students with a knowledge of current methods of general fire service operations to update and further develop basic skills and knowledge acquired in entrance level training and to develop an awareness and knowledge of changes in the fire service occupational field. The course may be repeated three times. Units earned for this course do not count toward the associate degree.

**FIRE 95A Fire Command Units 2**

*Prerequisites: FIRE 91.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to provide prospective or active fire company officers with information and experience in command techniques. The course emphasizes decision-making, act of commanding, authority to command, and an overview of fire service organizational structure. This course is consistent with California State Fire Marshall curriculum Command 1A. Planning and training are provided for effective performance of fire company officers at the scene of an emergency.

**FIRE 95B Incident Command Units 2**

*Prerequisites: FIRE 91.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed to provide fire fighters and county officers a review of incident command procedures with emphasis on those principles relative to hazardous materials incidents. This course is consistent with California State Fire Marshall curriculum Command 1B.

## FOOD TECHNOLOGY

**FOOD 30 Wines and Winemaking Units 3**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an introduction to wine technology including history, fermentation, production practices, wine types, and the wine industry in San Joaquin County, California and other wine producing areas. (UC, CSU)

**FOOD 50H Special Studies: Food Science Technology Units 2**

*Prerequisites: Reading level II or concurrent enrollment in reading; completion of survey course with grade of "B" or better and presentation of a project acceptable to the instructor and division chairperson.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is open to students qualified to do advanced work in the field. The course includes research, directed reading, field work, or other advanced study, and the course may be repeated for a maximum of four units. (CSU)

## FRENCH

**FREN 1 Elementary French Units 5**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an introduction to the French language and the French culture. Emphasis is placed on the following skills in the order given: listening, speaking, reading, and writing. (UC, CSU, CAN FREN 2, CAN FREN Seq A with both FREN 1 and 2)

**FREN 2 Elementary French Units 5**

*Prerequisites: FREN 1 or 52.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is an introduction to the French language and the French culture. Emphasis is placed on the following skills in the order given: listening, speaking, reading, and writing. (UC, CSU, CAN FREN 4, CAN FREN Seq A with both FREN 1 and 2)

**FREN 3 Intermediate French Units 5**

*Prerequisites: FREN 2 or 54; reading level II.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a continued study of the French language and the French culture. Efforts to improve reading and composition skills are based on both contemporary and traditional selections. (UC, CSU, CAN FREN 8, CAN FREN Seq B with both FREN 3 and 4)

**FREN 4 Intermediate French Units 5**

*Prerequisites: FREN 3; reading level II.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a continued study of the French language and the French culture. Efforts to improve reading and composition skills are based on both contemporary and traditional selections. (UC, CSU, CAN FREN 10, CAN FREN Seq B with both FREN 3 and 4)

**FREN 36A Introductory French Conversation Units 2**

*Prerequisites: FREN 51 or FREN 52 or FREN 1; reading level II.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a skill-building course designed to strengthen fundamental communication patterns based on typical daily situations. (CSU)

**FREN 36B Beginning French Conversation Units 2**

*Prerequisites: Concurrent enrollment in or completion of FREN 53 or 54 or FREN 2; reading level II.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a skill-building course designed to achieve conversational ability based on typical daily situations. (CSU)

**FREN 36C Intermediate French Conversation Units 2**

*Prerequisites: Concurrent enrollment in or completion of FREN 3; reading level II.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a skill-building course designed to refine conversational ability based on typical daily situations. (UC, CSU)

**FREN 36D Advanced French Conversation Units 2**

*Prerequisites: Concurrent enrollment in or completion of FREN 4; reading level II.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a skill-building course designed to produce proficiency in oral rhetoric based on typical daily situations. (UC, CSU)

**FREN 38A Special Assignment: Listening Units 2**

*Prerequisites: Concurrent enrollment in or completion of FREN 1, or 51; reading level II.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a skill-building course with emphasis on listening. The course is adjusted to meet the special needs of students, and may be offered for individual or group study. (CSU)

**FREN 38B Special Assignment: Pronunciation Units 2**

*Prerequisites: Concurrent enrollment in or completion of FREN 1 or 51; reading level II.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a skill-building course with an emphasis on pronunciation. The course is adjusted to meet the special needs of students, and may be offered for individual or group study. (CSU)

**FREN 38C Special Assignment: Reading Units 2**

*Prerequisites: Concurrent enrollment in or completion of FREN 1 or FREN 51; reading level II.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a skill-building course with an emphasis on reading. The course is adjusted to meet the special needs of students, and it may be offered for individual or group study. (CSU)

**FREN 38D Special Assignment: Writing Units 2**

*Prerequisites: Concurrent enrollment in or completion of FREN 1 or 51 or equivalent; reading level II.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a skill-building course with an emphasis on writing. The course is adjusted to meet the special needs of students, and it may be offered for individual or group study. (CSU)

**FREN 50H Special Studies Units 2**

*Prerequisites: Reading level II; completion of survey course with grade of 'B' or better and presentation of a project acceptable to the instructor and division chairperson.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is open to students qualified to do advanced work in the field. The course includes research, directed reading, field work, or other advanced study, and the course may be repeated for a maximum of four units. (UC, CSU)

**FREN 51 Elementary French Units 2.5**

*Prerequisites: None.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a study and practice in speaking, reading, and writing the French language. Emphasis is placed on culture and civilization. The combined five units of FREN 51 and FREN 52 are equivalent to French 1. (UC, CSU, CAN FREN 2 with both FREN 51 and 52, CAN FREN Seq A with FREN 51, 52, 53, and 54)

**FREN 52 Elementary French Units 2.5**

*Prerequisites: Reading level II; FREN 51.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a study and practice in speaking, listening, reading, and writing the French language. Emphasis is placed on culture and civilization. The combined five units of FREN 51 and FREN 52 are equivalent to French 1. (UC, CSU, CAN FREN 2 with both FREN 51 and 52, CAN FREN Seq A with FREN 51, 52, 53, and 54)

**FREN 53 Elementary French Units 2.5**

*Prerequisites: Reading level II; FREN 52.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a continued practice in speaking, listening, reading, and writing the French language. Emphasis is placed on language speech patterns, culture, and civilization. The combined five units of FREN 53 and FREN 54 are equivalent to French 2. (UC, CSU, CAN FREN 4 with both FREN 53 and 54, CAN FREN Seq A with FREN 51, 52, 53, and 54)

**FREN 54 Elementary French Units 2.5**

*Prerequisites: Reading level II; FREN 53.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a continued practice in speaking, listening, reading, and writing the French language. Emphasis is placed on language speech patterns, culture, and civilization. The combined five units of FREN 53 and FREN 54 are equivalent to French 2. (UC, CSU, CAN FREN 4 with both FREN 53 and 54, CAN FREN Seq A with FREN 51, 52, 53, and 54)

## GEOGRAPHY

**GEOG 1 Physical Geography Units 3**

*Prerequisites: Reading level II.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is designed as a study of the natural environment. Individual topics include maps, time zones, seasons, weather, climate, the hydrologic cycle, natural vegetation, soils and land forms. (UC, CSU, CAN GEOG 2, CAN GEOG 6 with both GEOG 1 and GEOG 1L)

**GEOG 1L Physical Geography Laboratory Units 1**

*Prerequisites: Reading level II; concurrent enrollment or completion of GEOG 1.*

*Limitations on Enrollment: None.*

*Advisories: None.*

This course is a series of laboratory exercises involving weather, climate, and land forms with emphasis on map reading, air photo interpretation, and basic cartography. It correlates with topics from GEOG 1. GEOG 1L plus GEOG 1 will satisfy the laboratory science requirement for general education requirements. (UC, CSU, CAN GEOG 6 with both GEOG 1 and GEOG 1L)