

ous types of social market economies. The theories will be applied to the study of several countries, including the former Soviet Union, Japan, China, Mexico, and a Western European country, as they compare to the United States.

**ECON 115 Economic History of the United States (3)**  
3 hours lecture

**Transfer acceptability:** CSU; UC

Development of the United States economy from the colonial period to the present. Emphasis will be on the evolution of such institutions as labor unions, business, banking, and government. Economic theory will be used to analyze historical problems.

**ECON 197 Economics Topics (.5 - 4)**

Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.

**Note:** May be taken 4 times

**Transfer acceptability:** CSU; UC – Credit determined by UC upon review of course syllabus.

Topics in Economics. See Class Schedule for specific topic offered. Course title will designate subject covered.

**ECON 295 Directed Study in Economics (1, 2, 3)**  
3, 6, or 9 hours laboratory

**Prerequisite:** Approval of project or research by department chairperson

**Note:** May be taken 4 times

**Transfer acceptability:** CSU; UC – Credit determined by UC upon review of course syllabus.

Independent study for students who have demonstrated a proficiency in economics subjects and have the initiative to work independently on projects or research that does not fit into the context of regularly scheduled classes. Students will work under the personal supervision of an instructor.

## Education (ED)

Contact Reading Services for further information.  
(760) 744-1150, ext. 2568  
Office: RC-1

### COURSE OFFERINGS

**ED 200 Careers in Teaching (3)**  
3 hours lecture

**Transfer acceptability:** CSU; UC

An overview of the teaching profession for those students contemplating a career in education. Foundations of education, critical issues in the classroom, and the history and philosophy of education are addressed. Effective and active learning, diversity in the classroom and teaching profession standards are discussed. Guided classroom observations (45 hours) of a K-12 classroom in a variety of subject areas are a requirement for this course.

## Electrician Trainee (ELTR)

Contact Occupational & Noncredit Programs for further information.  
(760) 744-1150, ext. 2284  
Office: AA-138

### Certificates of Achievement

Certificate of Achievement requirements are listed in Section 6 (green pages).  
• Electrician Trainee

### PROGRAM OF STUDY

#### Electrician Trainee

The Electrician Trainee program prepares the student in the elements of electrical inside construction in compliance with the requirements of State of California for non-certificated electricians. Upon completion of the program, the student is eligible to take the California State Electricians Certification exam.

### CERTIFICATE OF ACHIEVEMENT

Program Requirements	Units
ELTR 101 Introduction to the Electrical Trade and Industry and Construction Safety	3.5
ELTR 102 Introduction to Electrical Theory, Basic Algebra Concepts, and the National Electric Code	3.5
ELTR 103 Advanced DC Circuit Concepts, Introduction to 3Ø Circuits, and National Electric Code Applications	3.5
ELTR 104 AC Circuit Concepts, Applied Electronics, and National Electric Code Applications	3.5
ELTR 105 Digital Logic Circuits, Conductor Characteristics and Applications, and National Electric Code	3.5
ELTR 106 Overcurrent Protection, Lighting Systems, Basic Blueprints and Specifications, and National Electric Code	3.5
ELTR 107 Grounding Systems, Advanced Blueprints and Specifications, Motor Design and Installation, and National Electric Code	3.5
ELTR 108 Motor Control Principles, Generators and Power Supplies, and National Electric Code	3.5
ELTR 109 Transformer Theory, Leadership and Management, and Test Equipment	3.5
ELTR 110 Specialty Systems	3.5
<b>TOTAL UNITS</b>	<b>35</b>

### COURSE OFFERINGS

**ELTR 101 Introduction to the Electrical Trade and Industry and Construction Safety (3.5)**

3 hours lecture- 1 ½ hours laboratory

**Note:** May be taken 4 times

Examines safety issues surrounding construction jobsites and installation of electrical systems. Includes OSHA 10 certification, identification of job-site hazards, safe work practices and personal protective equipment for various construction site hazards. Care for breathing and cardiac emergencies along with basic first aid and AED training for both adults and children is covered. Substance abuse will be addressed. Basic math operations will be reviewed and reinforced.

**ELTR 102 Introduction to Electrical Theory, Basic Algebra Concepts, and the National Electric Code (3.5)**

3 hours lecture- 1 ½ hours laboratory

**Note:** May be taken 4 times

Provides an introduction to algebraic and trigonometric concepts and application of their principles to solve basic electrical equations and layout conduit bends. Teaches the student to apply basic electrical theory to predict circuit behavior. Basic conduit bending techniques will be developed. The National Electric Code will be introduced.

**ELTR 103 Advanced DC Circuit Concepts, Introduction to 3Ø Circuits, and National Electric Code Applications (3.5)**

3 hours lecture- 1 ½ hours laboratory

**Recommended preparation:** ELTR 102

**Note:** May be taken 4 times

Study of circuit analysis techniques, series, parallel, and combination DC circuits, test instruments, National Electric Code (NEC), and elementary 3Ø circuits.

**ELTR 104 AC Circuit Concepts, Applied Electronics, and National Electric Code Applications (3.5)**

3 hours lecture- 1 ½ hours laboratory

**Recommended preparation:** ELTR 103

**Note:** May be taken 4 times

Study of AC theory, exploration of inductance and capacitance and the effect of their reactance on AC circuits and the application of electronic concepts and components.

**ELTR 105 Digital Logic Circuits, Conductor Characteristics and Applications, and National Electric Code (3.5)**

3 hours lecture- 1 ½ hours laboratory

**Recommended preparation:** ELTR 104