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
TOTAL UNITS		**35**

COURSE OFFERINGS

ELTR 101 Introduction to the Electrical Trade and Industry and Construction Safety (3.5)
3 hours lecture- 1½ 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- 1½ 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- 1½ 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- 1½ 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- 1½ hours laboratory
Recommended preparation: *ELTR 104*

Note: *May be taken 4 times*
Study of digital logic concepts and their real-world application. Identification, selection, and installation of electrical conductors.

ELTR 106 Overcurrent Protection, Lighting Systems, Basic Blueprints and Specifications, and National Electric Code (3.5)
3 hours lecture- 1½ hours laboratory
Recommended preparation: *ELTR 105*
Note: *May be taken 4 times*
Study of blueprints and specifications. Application of the National Electric Code to cover current protection, panelboards, and lighting systems.

ELTR 107 Grounding Systems, Advanced Blueprints and Specifications, Motor Design and Installation, and National Electric Code (3.5)
3 hours lecture- 1½ hours laboratory
Recommended preparation: *ELTR 106*
Note: *May be taken 4 times*
Advanced concepts for blueprints and specifications. Study of motor design and application and National Electric Code concepts.

ELTR 108 Motor Control Principles, Generators and Power Supplies, and National Electric Code (3.5)
3 hours lecture- 1½ hours laboratory
Recommended preparation: *ELTR 107*
Note: *May be taken 4 times*
Addresses techniques for controlling AC and DC motors. Students examine conventional and breaking technologies for power generation.

ELTR 109 Transformer Theory, Leadership and Management, and Test Equipment (3.5)
3 hours lecture- 1½ hours laboratory
Recommended preparation: *ELTR 108*
Note: *May be taken 4 times*
Explores the theory and field application of transformers. Electrical test equipment operation and use will be addressed. Includes management and leadership principles for supervisors. Special equipment for security systems is discussed.

ELTR 110 Specialty Systems (3.5)
3 hours lecture- 1½ hours laboratory
Recommended preparation: *ELTR 109*
Note: *May be taken 4 times*
Examines specialty electrical systems commonly found in building construction. Includes fire alarm systems, closed-circuit television (CCTV) systems, telephone systems, cable television (CATV & MATV) systems, local area networks (LANs), fiber optic data systems, heating and air conditioning control systems, and lightning protection systems.

Electro-Mechanical Equipment Technician (EMET)

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).
• Mail Processing Equipment Mechanic

Certificates of Proficiency -
Certificate of Proficiency requirements are listed in Section 6 (green pages).
• Maintenance Mechanic

PROGRAMS OF STUDY

Mail Processing Equipment Mechanic

This certificate will provide the student with the necessary knowledge, skills and abilities to perform at the level of Mail Processing Equipment Mechanic level 8. Students will learn to maintain the electrical and mechanical components for various mail processing eqiuipment.

CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
CI 105	Electrical Codes I	3
CI 106	Electrical Codes II	3
DMT 81	Basic Hydraulics	4
EMET 50	Basic Mechanics for Servicing Electro-Mechanical Equip.	3
EMET 51	Mail Processing Equipment Mechanic Exam Preparation	3
IT/WELD 108	Technical Mathematics	3
TOTAL UNITS		**19**

Maintenance Mechanic

Specifically for individual employed or seeking employment in a medium to large distribution center and to prepare candidates to pass the mail processing equipment (EMET) technician's examination.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
EMET 50	Basic Mechanics for Servicing Electro-Mechanical Equip.	3
EMET 51	Mail Processing Equipment Mechanic Exam Preparation	3
TOTAL UNITS		**6**

COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

EMET 50 Basic Mechanics for Servicing Electro-Mechanical Equipment (3)
3 hours lecture
Recommended preparation: *Knowledge of simple algebraic equations; different number systems; different types of gears; mechanical advantage; and fluid dynamics*
Provides students with a basic overview of the maintenance process for postal service electro-mechanical equipment. Topics of study include levers and lever assemblies, gears and gear trains, sprockets and pulleys, basic hydraulics.

EMET 51 Mail Processing Equipment Mechanic Exam Preparation (3)
3 hours lecture
Recommended preparation: *Technical Mathematics-Ability to perform simple algebraic equations; Electricity-Understand DC and AC fundamentals; Electronics-Understand basic electronic principles; Mechanics-Understand basic mechanic fundamentals; Digital Electronics-Understand basic digital electronic principles.*
Designed to prepare students for the U.S. Postal Service Maintenance Mechanic, MPE-8 Entrance Examination. Highly recommended for students interested in a U.S. Postal Service Career focusing on equipment maintenance. Topics will cover all the aspects of mail processing equipment (MPE) maintenance, such as mechanics, electrical, and basic electronic systems.

Emergency Medical Education (EME)

Contact the Emergency Medical Education Department for further information.
(760) 744-1150, ext. 8150
Office: ESC-610

Associate in Arts Degrees -
AA Degree requirements are listed in Section 6 (green pages).
• Paramedic Training

Certificates of Achievement -
Certificate of Achievement requirements are listed in Section 6 (green pages).
• Paramedic Training

Certificates of Proficiency -
Certificate of Proficiency requirements are listed in Section 6 (green pages).
• EMT Basic