#### DT 117 Geometric Dimensioning and Tolerancing

I hour lecture - 3 hours laboratory **Note:** Cross listed as ENGR/WELD 117

Transfer acceptability: CSU

An introduction to geometric dimensioning and tolerancing ASME Y14.5-2009. Students will learn to identify, use appropriate geometric symbols and techniques of geometric dimension, and produce industrial quality drawings. Students will also learn to measure and verify geometric dimensions and tolerances of manufactured items.

#### DT 151 CAD/CAM Machining

(3)

(2)

1½ hours lecture - 4½ hours laboratory

Note: Cross listed as as ENGR/WELD 151

Transfer acceptability: CSU

Hands-on operation of importing three-dimensional solid and parametric three-dimensional models into CAD/CAM operations.

#### DT 180 3D Studio Max - Introduction to 3D

Modeling and Animation (3)

11/2 hours lecture - 41/2 hours laboratory

Transfer acceptability: CSU

An overview of 3D Studio Max. Hands-on operation of the software to produce basic three-dimensional models and basic technical animations.

# DT 182 3D Studio Max – Advanced 3D Modeling

and Animation (3)

 $1\frac{1}{2}$  hours lecture -  $4\frac{1}{2}$  hours laboratory

Prerequisite: A minimum grade of 'C' in DT 180

Transfer acceptability: CSU

Advanced 3D Studio Max applications to create special visual effects for high-end image production. Advanced keyframing, time-based editing, controllers, and video post will be employed to master state-of-the-art rendering and animation. The class is structured to help students start using 3D Studio Max in a production environment.

#### DT 184 Real Time 3D Technical/Game Animation (2)

I hour lecture - 3 hours laboratory

Transfer acceptability: CSU

Students will create interactive 3D applications using a direct  $\boldsymbol{X}$  base real time engine for the game industry, computer based training and product visualization.

## DT 196 Special Problems in Computer Aided Drafting (1, 2, 3)

3, 6, or 9 hours laboratory **Transfer acceptability:** CSU

An advanced course designed to aid the student in the enrichment of an area of concentration in AutoCAD and third party drafting software and is of a research nature. Content to be determined by the need of the student under signed contract with the instructor.

#### DT 197 Drafting Technology Topics (.5 - 4

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

**Transfer acceptability:** CSU

Topics in Drafting. See class schedule for specific topic covered. Course title will designate subject covered.

#### DT 226 Printed Circuit Board Design (3)

11/2 hours lecture - 41/2 hours laboratory

**Note:** Cross listed as as ENGR 226

Transfer acceptability: CSU

Instruction in printed circuit board design generally required for entry level positions in the electronic industry. Includes artwork and complete documentation for analog and digital multi-layer, flexible and high-speed boards using current IPC standards. Drafting will be performed on the computer using high-end printed circuit board software.

#### DT 227 Advanced Printed Circuit Board Design

11/2 hours lecture - 41/2 hours laboratory

Prerequisite: A minimum grade of 'C' in DT/ENGR 226

Note: Cross listed as as ENGR 227

Transfer acceptability: CSU

Advanced problems and instruction in printed circuit board design generally required for entry-level position in the electronic industry. Special emphasis will be placed on advanced applications including surface mount technology. Includes artwork and complete documentation for analog and digital multi-layer, flexible and high-speed boards using current IPC standards. Drafting will be performed on the computer using AutoCAD and PADS software.

### Earth Sciences (ES)

Contact the Earth, Space, and Aviation Sciences Department for further information.

(760) 744-1150, ext. 2512

Office: NS-110G

#### **COURSE OFFERINGS**

# ES 100 The Earth as a System: Case Studies of Change in Space and Time

(3)

(3)

3 hours lecture

Transfer acceptability: CSU; UC

An overview of the fields of geology, geography, oceanography, and astronomy that approach Earth as a system. Areas of study include those related to plate tectonics, earthquakes, volcanoes, geologic time, landscape evolution, weather systems, ocean circulation, climate change, and exploration of the solar system.

#### ES 115 Natural Disasters and Environmental Hazards (3)

3 hours lecture

**Note:** Cross listed as GEOG 115

Transfer acceptability: CSU; UC

Examination and analysis of natural disasters and environmental hazards including earthquakes, tsunamis, volcanic activity, hurricanes, flooding, air and water polution, and global climate change.

#### ES 195 Regional Field Studies in Earth Science (1, 2, 3)

2, 4 or 6 hours lecture/laboratory

Transfer acceptability: CSU

Extended field studies that examine Earth Science-related topics in selected regions. Emphasis is upon field observation, interpretation, and analysis of varying Earth Science phenomena including formation of landforms, natural resources, ecosystems, climate patterns, tectonic processes and human impacts.

# **Economics (ECON)**

Contact the Economics, History and Political Science Department for further information.

(760) 744-1150, ext. 2412

Office: MD-375

For transfer information, consult a Palomar College Counselor.

#### **Associate in Arts Degrees -**

AA Degree requirements are listed in Section 6 (green pages).

Economics

#### **Certificates of Achievement -**

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

• Economics

#### **PROGRAM OF STUDY**

#### **Economics**

Provides lower division preparation for pursuing advanced studies in economics or prepares a complementary base for many professions and areas of interest including business administration, law, engineering, journalism, public administration, and environmental studies. Transfer students should consult the four year college or university catalog for specific requirements or see a Palomar College counselor.

# A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
ECON 101	Principles of Economics (Macro)	3
ECON 102	Principles of Economics (Micro)	3
Group I (Sel	ect 6 units)	
ECON 110	Comparative Economic Systems	3
ECON 115	Economic History of the United States	3
ECON 120	Environmental Economics	3
ECON 125	Introduction to Labor Studies	3
ECON 295	Directed Study in Economics	3
IBUS 100	Intro to Int'l Business Management	3
Group II (Se	lect 7-8 units)	
MATH II0	College Algebra	4
MATH 120	Elementary Statistics	3
MATH 130	Calculus for the Social Sciences	4
Group III (Se	elect 3 units)	
CSIT 105	Computer Concepts and Applications	3
PHIL 200	Critical Thinking	3
TOTAL UNITS		22 - 23

#### **COURSE OFFERINGS**

#### ECON 100 Basic Economics (3)

3 hours lecture

**Note:** Not intended for programs which require Principles of Economics ECON 101 and/or 102

**Transfer acceptability:** CSU; UC – no credit if taken after ECON 101 or 102 A study of the American economic system as it affects the decision making of the individual as income earner, taxpayer, and voter. Emphasis is on application of the analyses of supply and demand, productivity, wages and the labor force, the money and banking system, the role of government, and domestic and international economic issues.

#### ECON 101 Principles of Economics (Macro) (3)

3 hours lecture

**Prerequisite:** A minimum grade of 'C' in MATH 56, or MATH 60, or eligibility determined through the math placement process.

Transfer acceptability: CSU; UC

Descriptive analysis of the structure and functioning of the economy of the United States. Emphasizes national income, problems of inflation and unemployment, the role of government, specifically fiscal and monetary policies, money and banking, economic growth, and analysis of global issues.

#### ECON 102 Principles of Economics (Micro) (3)

3 hours lecture

**Prerequisite:** A minimum grade of 'C' in MATH 56, or MATH 60, or eligibility determined through the math placement process.

Transfer acceptability: CSU; UC

Analyzes decision-making of individuals and groups as it relates to economic behavior. Examines market structures and resource markets under varying degrees of competition. Investigates causes of market failures such as public goods and externalities. Includes international trade and finance.

#### **ECON II0** Comparative Economic Systems

(3)

3 hours lecture

Transfer acceptability: CSU; UC

A study of various types of economic institutions and decision making systems. Emphasis is given to the theories of capitalism, Marxian economics, and the various 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 120 Environmental Economics (3)

3 hours lecture

Transfer acceptability: CSU; UC

A study of major environmental issues from an economics perspective. Models will be developed and used to explore case studies on issues and policies. A strong emphasis will be placed on resource management problems. Course will provide a rationale for government involvement in the market-based economy.

#### ECON 125 Introduction to Labor Studies (3)

3 hours lecture

Transfer acceptability: CSU; UC

An introduction to Labor Studies. The focus is on how fundamental work is to human relations and the creation of communities. Moreover, the course examines how work, workers and organizations and institutions shape and define the employment relationship. Surveys how class, race, ethnicity, and gender impact work; the role of corporations; the role of unions; the global economy, and the future of work.

#### **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 and/or laboratory may be scheduled by the department. Refer to Class Schedule.

**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)

1, 2, or 3 hours lecture

**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.

# Emergency Medical Education (EME)

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

Office: ESC-808

#### **Associate in Science Degrees -**

AS 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