(3)

#### 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)

11/2 hours lecture - 41/2 hours laboratory

Note: Cross listed as as ENGR/WELD 151

# Transfer acceptability: CSU

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

### DT 180 3D Studio Max - Introduction to 3D **Modeling and Animation**

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

11/2 hours lecture - 41/2 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**

I hour lecture - 3 hours laboratory

Transfer acceptability: CSU

Students will create interactive 3D applications using a direct 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**

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

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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 (3) of Change in Space and Time 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