

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)
4 hours lecture/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 185 Architectural 3D Studio MAX (3)
6 hours lecture/laboratory

Prerequisite: A minimum grade of 'C' in DT 125/R DT 125

Note: May be taken 2 times

Transfer acceptability: CSU; UC

An overview of 3D Studio MAX and AutoCAD to create realistic architectural three-dimensional models for rendering and animation.

DT 196A Special Problems in Drafting (1,2,3)
2, 4, or 6 hours lecture/laboratory

Note: May be taken 4 times

Transfer acceptability: CSU

This course is designed to aid the student in the enrichment of the area of concentration in drafting and is of a research nature. Content to be determined by the need of the student under signed contract with the instructor.

DT 196B Special Problems in Computer Aided Drafting (1,2,3)
2, 4, or 6 hours lecture/laboratory

Note: May be taken 4 times for a maximum of 9 units

Transfer acceptability: CSU

This is 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, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.

Note: May be taken 4 times

Transfer acceptability: CSU

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

DT 200 Advanced Computer Aided Architectural Drafting (4)

8 hours lecture/laboratory

Prerequisite: DT/R DT 125 and completion of, or concurrent enrollment in, DT 105

Note: Cross listed as R DT 200; may be taken 2 times

Transfer acceptability: CSU

Advanced techniques in the operation of AutoCAD software for architectural applications on IBM-compatible computers. Preparation of various architectural working drawings from a preliminary residential design.

DT 202 Advanced Computer Aided Architectural Drafting II (4)

8 hours lecture/laboratory

Recommended preparation: DT/R DT 200

Note: Cross listed as R DT 202; may be taken 2 times

Transfer acceptability: CSU

Third-party architectural software for use in conjunction with AutoCAD software. Preparation of 3D architectural models and their manipulation for preparation of individual architectural working drawings including: dimensioned floor plans, building sections, elevations, etc.

DT 210 Printed Circuit Board Design (3)

6 hours lecture/laboratory

Prerequisite: A minimum grade of 'C' in DT 110

Note: May be taken 2 times

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 211 Advanced Printed Circuit Board Design (3)

6 hours lecture/laboratory

Prerequisite: DT 210

Note: May be taken 2 times

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.

DT 215 Architectural Design Fundamentals I (5)

10 hours lecture/laboratory

Recommended preparation: DT 144 and DT 155

Transfer acceptability: CSU; UC

Development of problem solving and analytical skills in architectural design involving consideration of factors of architectural form in two- and three-dimensional compositions, and design concepts and applications.

DT 216 Architectural Design Fundamentals II (5)

10 hours lecture/laboratory

Recommended preparation: DT 145 and DT 215

Transfer acceptability: CSU; UC

Complex architectural problems involving consideration of factors of structure, site, and climate.

Earth Sciences (ES)

Contact the Earth, Space, and Aviation Sciences Department for further information, (760) 744-1150, ext. 2512.

COURSE OFFERINGS

ES 100 The Earth as a System: Case Studies of Change in Space and Time (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 105 Earth System Science: Climate Change (3)

3 hours lecture

Transfer acceptability: CSU; UC

Introduction to the science of global change that includes an overview of the international political debate and the mechanisms of the climate system. Topics also examine climate change on different time scales including the Ice Ages and the outlook for climate change.

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 pollution, and global climate change.

ES 195 Regional Field Studies in Earth Science (1,2,3)
 2, 4 or 6 hours lecture/laboratory
Note: May be taken 4 times
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. For transfer information, consult a Palomar College counselor.

Associate in Arts degree requirements, Certificate of Achievement requirements, and Certificate of Proficiency requirements are listed in Section 6 (green pages) of the catalog.

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 (Select 6 units)		
ECON 110	Comparative Economic Systems	3
ECON 115	Economic History of the United States	3
ECON 295	Directed Study in Economics	3
IBUS 100	Intro to Int'l Business Management	3
Group II (Select 7-8 units)		
MATH 110	College Algebra	4
MATH 120	Elementary Statistics	3
MATH 130	Calculus for the Social Sciences	4
Group III (Select 3 units)		
CSIS 105	Computer Concepts and Microcomputer Apps.	3
PHIL 115	Logic and 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
Transfer acceptability: CSU; UC; CAN ECON 2
 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, money supply, and economic growth.

ECON 102 Principles of Economics (Micro) (3)
 3 hours lecture
Transfer acceptability: CSU; UC; CAN ECON 4
 Descriptive analysis of behavior of specific units and individuals. Examines market structures and resource markets under varying degrees of competition. Includes international trade and finance.

ECON 110 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 socialism. The theories will be applied to the study of several countries, including the 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

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.

ED 201 Literacy Instruction (3)
 3 hours lecture
Transfer acceptability: CSU
 This course is designed for both the student who is considering a career in teaching as well as the prospective literacy tutor. The basic process of literacy acquisition is presented as well as literacy strategies for the emerging and developing reader. The literacy dynamics of a multicultural learning environment will also be presented. 20 hours of literacy training required.