Technology SUSTAINABILITY Architecture EFFICIENCY

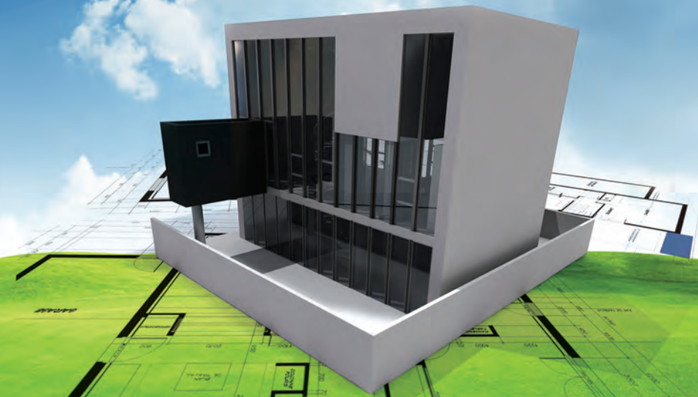
Systems *Universal Design* **Solar** Green Materials WATER

PALOMAR COLLEGE ARCHITECTURE

ECO-BUILDING

"Man built most nobly when limitations were at their greatest."

- Frank Lloyd Wright



This program is designed to provide the knowledge and skills needed to promote energy and resource efficient building practices through current code changes and new tax cost payback. Graduates will be prepared for numerous jobs within the deconstruction and remodel industries and will have skills needed by builders, contractors, architects or designers seeking assessment of current construction methods for framing, water use and LEED environmental compliance.

"Sustainable architecture is a practical, energy conscious commitment to design an environmental ethical future through responsible construction management. Building practices, potential costing tools, energy efficiency, resource conservation, indoor air quality, remodeling/renovation options and control of building operations from planning a building to deconstruction are covered in this program. Coursework responds to current energy codes throughout California and the nation. Sustainable building is smart business."

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Eco-Building Professional
Certificate of Achievement

Quality building provides the tools for the intelligent design of durable, resource efficient construction technique in the California region. Decision making for our state combines land use planning with stewardship principles.

Program Requirements

ARCH 135	Architectural Materials and Methods of Construction	3
ARCH 160	Environmental Architecture and Design	4
ARCH 216	Architectural Design Fundamentals II	5
ID 105	Materials and Resources	3
ID 130	Light and Color	3
TOTAL UNITS		**18**

Recommended Electives

GEOG 120 Introduction to Geographic Information Systems and GIS Software 4
MATH 60 Intermediate Algebra 4

ARCH 135 Architectural Materials and Methods of Construction ..... (3)
1½ hours lecture - 4½ hours laboratory
Transfer acceptability: CSU
An introduction to the use and application of building construction materials and processes.

ARCH 160 Environmental Architecture and Design ..... (4)
3 hours lecture - 3 hours laboratory
Note: May not be taken for Pass/No Pass grading
Transfer acceptability: CSU; UC - ARCH 144, 145, 160, 215, 216 and ART 102, 103 combined: maximum credit, 18 units
An introduction to the theory and application of bio-climate adaptive architectural design in small scale buildings including effective energy use, solar geometry, environmental measurements, heat flow, heat transfer, and thermal masses. Emphasis is on design and construction principles for lighting, passive shading, heating, cooling and ventilating envelope load-dominated buildings. This is a service learning course. Students must be involved in relevant community service as a part of this course work. Students will conduct research and work collaboratively towards a solution for community development.

ARCH 216 Architectural Design Fundamentals II ..... (5)
2½ hours lecture - 7½ hours laboratory
Recommended preparation: ARCH 145 and 215
Transfer acceptability: CSU; UC - ARCH 144, 145, 160, 215, 216 and ART 102, 103 combined: maximum credit, 18 units
Complex architectural problems involving consideration of factors of structure, site, and climate.

ID 105 Materials and Resources ..... (3)
3 hours lecture
Transfer acceptability: CSU
Selection, care, and use of materials used in residential and commercial interior design.

ID 130 Light and Color ..... (3)
3 hours lecture
Transfer acceptability: CSU
Principles and application of light and its effect on color and the design process in interiors, architecture, and visual merchandising. Emphasizes lighting needs, light sources, light calculations, and energy conservation.