Modesto Junior College
Course Outline of Record

ARCH 153

I. OVERVIEW
The following information will appear in the 2012 - 2013 catalog

ARCH 153  Architectural Design 2  5 Units

Prerequisite: Satisfactory completion of ARCH 152.

Continuation of ARCH 152. Explorations in architectural design within an environmental context. Consideration of projects dealing with buildings, site, climate, and structural issues and their interaction with aesthetic and functional concerns.

Materials Fee Required

Field trips might be required. (A-F or P/NP - Student choice) Lecture /Lab
Transfer: (CSU, UC)

II. LEARNING CONTEXT
Given the following learning context, the student who satisfactorily completes this course should be able to achieve the goals specified in Section III, Desired Learning:

A. COURSE CONTENT

1. Required Content:

ARCH 153 is a continuation of ARCH 152 that expands on the theories, concepts, processes and skills pertaining to context, structure, and climate that function as determinants in shaping the built environment and that emphasizes the communication of those concepts in graphic and model form:

a. Expanded development of design concepts
   i. Environmental
   ii. Building Code

b. Expanded skill sets of:
   i. Observation and research
   ii. Conceptualization
   iii. Implementation
   iv. Synthesis of ideas
   v. Layout

c. Expanded development of model building skills

d. Expanded development of the architectural design process
   i. Schematic Design
   ii. Preliminary Design
   iii. Design Development
iv. Final Design

e. Improved communication skills
   i. Verbal communication
   ii. Written communication
   iii. Graphic communication

f. Analysis
   i. Functional/Practical qualities
   ii. Aesthetic qualities

g. Structural Components and Systems
   i. Building materials
   ii. Structural systems
   iii. Structure vs. form
   iv. Structure & Form vs. material considerations

2. Required Lab Content:

This course is taught in a studio format that integrates Lecture and Lab content. There is no distinction between the two, therefore, the lab content is the same as the basic course content.

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   i. Building materials
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B. ENROLLMENT RESTRICTIONS

1. Prerequisites
   Satisfactory completion of ARCH 152.

2. Requisite Skills
   *Before entering the course, the student will be able to:*
   
   a. Demonstrate a basic knowledge of area division
   
   b. Identify, examine and appraise the relationship between man, the built environment and the physical environment.
   
   c. Understand the visual perceptions that allow complex building forms to evolve from primary shapes.
   
   d. Identify and differentiate between the various systematic problem-solving processes.
   
   e. Demonstrate the necessary skills, tools and methods to communicate architectural design concepts in a physical 3D model
C. **HOURS AND UNITS**

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<tr>
<th>INST METHOD</th>
<th>TERM HOURS</th>
<th>UNITS</th>
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<tbody>
<tr>
<td>Lect</td>
<td>54</td>
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</tr>
<tr>
<td>Lab</td>
<td>108</td>
<td>2.00</td>
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<tr>
<td>Disc</td>
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D. **METHODS OF INSTRUCTION (TYPICAL)**

Instructors of the course might conduct the course using the following method:

1. Lectures, discussions
2. Written and verbal analysis of projects
3. Assessment and critique of three-dimensional study models
4. Use of visual aids: Pictures, overhead transparencies, and computer generated visual graphics
5. Assign student assignments in any of the following: research, written papers, and verbal and/or graphic classroom presentations
6. Discussions of specific architectural design topics and theories including analysis, evaluation and judgment on their validity
7. Classroom critiques of design solutions and defense of design
8. Discussion and evaluation of existing and conceptual architectural forms in the built environment

E. **ASSIGNMENTS (TYPICAL)**

1. **EVIDENCE OF APPROPRIATE WORKLOAD FOR COURSE UNITS**
   
   *Time spent on coursework in addition to hours of instruction (lecture hours)*
   
   a. The student will be required to complete the following major projects over the course of the semester:
      
      i. Assignment #1: Courtyard Canopy: design a tensile, fabric structure to partially cover the courtyard between Sierra and Yosemite Halls; present the final design in a finished, 3D physical model and make a verbal presentation to the class.
      
      ii. Assignment #2: Small Living Space: Redesign an existing garage into a part-time residential space for an older couple; present your design in a graphic presentation with an oral presentation to the class.
      
      iii. Assignment #3: Research and report on a local apartment complex; design two typical one-bdrm. & two-bdrm apartment units; and incorporate these floor plans in a minimum of two apartment clusters.
      
      iv. Assignment #4: Apartment Complex: Design a fully developed site plan for a large apartment complex using the unit designs from Assignment #3; the final, colored rendering will be presented to the class.
      
      v. Assignment #5: Club House: Design a club house for the apartment complex and present your rendered design graphically and verbally to the class.
      
      vi. Assignment #6: Prepare a colored sales brochure for the apartment complex.

   b. The student will be required to produce several short design studies to illustrate design concepts from the text reading material; present at least one collage poster based on an internet research report; present a written and oral report on a well know architectural "open space" (plaza, park,
2. **EVIDENCE OF CRITICAL THINKING**
   
   *Assignments require the appropriate level of critical thinking*
   
   **a.** Assignment #1: The student is required to research, analyze and design an aesthetically pleasing and practical shade structure.
   
   **b.** Assignment #2: The student is required to analyze design criteria and building code issues, consider floor plan options and prepare presentation drawings for a small living space.
   
   **c.** Assignment #3: The student is required to research, summarize data, make a classroom report on a particular design aspect of an apartment complex, and design two apartment units.
   
   **d.** Assignment #4: The student is required to provide a complete site plan design for a large apartment complex.
   
   **e.** Assignment #5: The student is required to research and design the club house for the apartment complex.
   
   **f.** Assignment #6: The student is required to create a sales brochure with pertinent text and graphics for the apartment complex.

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F. **TEXTS AND OTHER READINGS (TYPICAL)**


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III. **DESIRED LEARNING**

A. **COURSE GOAL**

   *As a result of satisfactory completion of this course, the student should be prepared to:*

   create solutions to increasingly more complex architectural design problems by analyzing, evaluating, and utilizing basic design criteria, site constraints, and building codes; present the solution in a comprehensive, two-dimensional graphic and/or three-dimensional model presentation; and defend his/her solution in a classroom critique.

B. **STUDENT LEARNING GOALS**

   *Mastery of the following learning goals will enable the student to achieve the overall course goal.*

1. **Required Learning Goals**

   *Upon satisfactory completion of this course, the student will be able to:*

   **a.** Understand and employ the principles of tensile fabric construction in the construction of a 3D physical model of a shade structure.
   
   **b.** Analyze an existing unused residential space and develop presentation drawings that show a transformation of that open space into an efficient, practical living space.
   
   **c.** Analyze and interpret data, create design criteria, visualize, and design an apartment complex site plan.
   
   **d.** Analyze and interpret data, create design criteria, visualize, and design an apartment complex club house.

2. **Lab Learning Goals**

   *Upon satisfactory completion of the lab portion of this course, the student will be able to:*

   **a.** This course is taught in a studio format that integrates Lecture and Lab content, so the Lab
Student Learning Goals are the same as the basic Learning Goals.

b. Understand and employ the principles of tensile fabric construction in the construction of a 3D physical model of a shade structure.

c. Analyze an existing unused residential space and develop presentation drawings that show a transformation of that open space into an efficient, practical living space.

d. Analyze and interpret data, create design criteria, visualize, and design an apartment complex site plan.

e. Analyze and interpret data, create design criteria, visualize, and design an apartment complex club house.

IV. METHODS OF ASSESSMENT (TYPICAL)

A. FORMATIVE ASSESSMENT

1. Evaluation and written assessment of two-dimensional graphic presentations.

2. Evaluation and written assessment of three-dimensional model presentations.

3. Evaluation of examinations on selected design topics.

B. SUMMATIVE ASSESSMENT

1. Oral classroom critiques of major design projects.