

WEST VALLEY COLLEGE
Course Outline

Department: Architecture

Course Number and Title: ARCH 063 - Architectural Design III

Length of course in weeks: 16

Units: 3

Total Class Hours/Week: 6

Lecture Hours/Week: 2

Lab Hours/Week: 4

Grade Type: Grade/Credit/No Credit

Catalog Description: This course is an advanced level architectural design studio. Students have opportunities to study environmental and visual phenomena through architectural design exercises. Additional topics include the introduction to structure and materials, and their relationships to form, function, and design intent. Students have opportunities to design a complex, multi-use, multi-story building by performing case studies relating to the specific building type prior to undertaking the design project itself.

Schedule Description: This course is an advanced level architectural design studio. Students have opportunities to design a complex, multi-use, multi-story building.

Prerequisites:

ARCH 061, Architectural Design I or
ARCH 062, Architectural Design II

Recommended Preparation:

MATH 103, Elementary Algebra or
MATH 103R, Elementary Algebra

Course Outcomes: Student Learning Outcomes

Outcome: Students will develop design solutions appropriate to the given site(s) and environmental context that demonstrate standard architectural professional criteria of building requirements; appropriate design parameters, structural systems and building space planning modules; and represent harmonious balance of standard principles and elements of design.

Assessment: Final project presentation.

Course Objectives: Upon completion of this course the student should be able to:

1. Formulate a set of cartoons demonstrating the drawings necessary to construct a complex building.
2. Integrate advanced design theory with architectonic problems.
3. Comprehend properties of construction materials and their qualitative input to design.
4. Develop the ability to select appropriate structural systems for different environmental design problems.
5. Develop design solutions appropriate to the given site(s) and environmental context.
6. Use professional techniques in preparing presentation for preliminary design concepts to clients.

Assessment: Students in this course will be graded base on the following four categories:

1. **Writing Assignments:** Project description
2. **Problem Solving Demonstrations:** Creativity growth
3. **Skill Demonstrations:** Case studies Architectural model making
4. **Examinations:** Final project presentation (a set of architectural drawings, physical model, and rendering)

Repeatability: 1 time

Methods of Instruction: Lecture & Lab

Lecture Content:

1. Site Considerations	10.00 %
2. Building Code / Zoning Issues	15.00 %
3. Climate	10.00 %
4. Evaluation and Response to Environmental Context	10.00 %
5. Structural System Selection	15.00 %
6. Material Selection	10.00 %
7. The Role of Detail in Design	10.00 %
8. Building Envelope Considerations	10.00 %
9. Contemporary Design Issues	10.00 %

Lab Content:

1. Use of graphic-based softwares such as Architectural Desktop, 3D Studio Max, SketchUp, and Photoshop to complete assignments and final project.	20.00 %
2. Use of (physical) models to study designs at various scales: for example, the overall site, the building, and the detail. A minimum of (3) three models are required.	20.00 %

3. Explore various aspects of the building in detail, through design studies, such as: exterior envelope, structural system, mechanical systems, relevant building details, interior finishes, etc. Students formally present their work at three phases: conceptual design, design development, and final presentation. Instructor approval is required at the completion of each phase before progressing to the next phase. Presentations include architectural drawings (hand and/or computer) and models (physical and computer). 40.00 %
4. Research the specific building type assigned, and present case-studies of a similar building that is architecturally significant. Students produce digital 3d-models depicting the selected case studies. 20.00 %

Critical Thinking: Integrate complex building requirements into a unified design concept.

College Level Required Reading, Writing, and other Outside-of-Class Assignments:

Over a 16 week presentation of the course, three hours per week are required for each unit of credit. Two hours of independent work done out of class are required for each hour of lecture. Outside of the regular class time the students in this class will be doing the following outside of class:

- **Study:** 1.00 additional hour
- **Problem solving activity or exercise:** 0.50 additional hour
- **Practice Skills:** 1.00 additional hour
- **Required reading:** 1.00 additional hour
- **Written work:** 0.50 additional hour

Textbook:

Ramsey Charles George, Sleeper Harold Reeve Architectural Graphic Standards, Student Edition. 11th ed. John Wiley & Sons, Inc., 2008. ISBN: 9780470085462