



HIGH SCHOOL COURSE OUTLINE

Department	Industrial/Technology		Course Title	Architectural Design 3-4			
Course Code	2603	Grade Level	10-12	Course Length	2 semesters	Credits/Semester	5
Required for Graduation			Meets H.S. Grad Requirement			Elective Credit	Yes
Prerequisites	Architectural Design 1-2						
Articulated with LBCC		Yes		Articulated with CSULB		No	
Meets UC "a-g" Requirement		Yes (f)		Meets NCAA Requirement		No	

COURSE DESCRIPTION

Architectural Design is a course in which the student will express him or herself visually and be able to showcase their creativity. Instruction will be given in the following areas, elements of design, architectural history, technical drafting, sketching, model building, and computer design. The course will give the students confidence in organizing ideas and the ability to work ideas into new and useful creations.

Architecture is a class that is part of a program that builds on the information learned in Architectural Design 1-2. This class will prepare the student for a career in architecture or will transfer to LBCC through an articulation agreement that will permit architecture students to earn up to 8 units of college credit. The classes are taught as lecture/lab with occasional field trips. The lectures are directly related to lab work (drawings). There is out of class work and a portfolio of drawings kept by the student.

GOALS: (Student needs the course is intended to meet)

Students need to:

- Explore professional level skills, and an understanding of the drawing systems and design considerations and to complete the required drawings for a residential structure.
- Explore aesthetic perception (Component 1 - Aesthetic Perception).
- Explore visual arts knowledge and skills to express Architectural ideas graphically (Component 2 - Creative Expression).
- Explore knowledge of historical and cultural developments and their influence on modern architecture (Component 3 - Cultural and Historical Context).
- Explore a base for making informed aesthetic judgments (Component 4 - Aesthetic Valuing).
- Explore information and skill in the presentation of ideas graphically.
- Explore an awareness of architectural fields.

PERFORMANCE OBJECTIVES:

Students will:

- Increase artistic knowledge, perception, and technical skills to express and communicate ideas graphically.
- Be able to apply a variety of architectural styles learned in Architectural Design 1-2 to their designs.

- Understand that contemporary architectural design is a reflection of historical, and culture developments.
- Learn techniques to solve advanced architectural design problems.
- Apply balance, rhythm, movement, variety, proportion, emphasis, and unity in the design of architectural structures.
- Make decisions and be able to respond to the aesthetic value of advanced architectural designs.
- Explore an understanding of color composition.
- Demonstrate the proper use of materials and symbols in architectural drawings.
- Demonstrate the ability to draw residential floor plans that include, proper room layout, utilizing architectural symbols, dimensions notes and schedules.
- Explore the ability to draw various computer aided architectural drawings and demonstrate proper scale plotting techniques.
- Add to the Portfolio of projects created in Architectural Design 1-2.
- Explore the necessary skills to create a more complex three-dimensional model of an architectural residence.
- Be able to perform visual, verbal, and written presentations.
- Be able to recognize the architectural styles of a minimum of five internationally recognized architects.
- Apply local building codes and city ordinances to the design of a residential site.

OUTLINE OF CONTENT AND TIME ALLOTMENT

The Four components of Visual Arts Education

- Artistic Perception (1)
- Creative Expression (2)
- Historical and Cultural Context (3)
- Aesthetic Valuing (4) will be utilized throughout the year as the students learn to analyze and respond to their own work and the work of others.

Course Outline (Visual Arts Components)

Weeks

Elements of Design (1,2,4) <i>Residential design, research, and evaluation</i> <i>Preliminary planning, design, and presentation</i>	4
Sketching (1,2)	2
Orthographic Projection	3
Historic perspective (3,4)	2
Architectural materials (1,2,3)	3
Architectural elements (1,2,3)	3

Computer Aided Design

3

Plan View Drawings	
Site Plan	12
Floor Plan	
Plot and Roof	
Elevations	
Section	
Foundation Plan	
Schedules	
Electrical Plan	
Details	
Career planning	1
Model building	<u>3</u>
Total	36

METHODS: A variety of instructional strategies will be utilized to accommodate all learning styles.

The student will be expected to explore a professional level of the following skills, an understanding of the drawing systems and design considerations and to complete the assignments.

SKILLS

Line weight, line types
Lettering
Scaling
Abbreviations
Template use

DRAWING SYSTEMS

Orthographic projection
CAD
Axonometric (oblique)
Preliminary Drawings
Drawing Reproduction

DESIGN CONSIDERATIONS

Proportion
Composition
Zoning / Building codes
Site Analysis
Geometric shapes
Space Relationships
Elevation studies

REQUIRED DRAWINGS

Site Plan
Plot and Roof
Floor Plans
Elevations
Section
Model
Foundation Plan
Schedules
Electrical Plan
Details

This course makes use of the following methods and materials for instruction:

Lectures	Testing
Class Discussions	Architectural Drawings
Demonstrations	Textbooks, reference materials
Individual Instruction	Student work displays
Design problems	Transparencies, Videos
Applied mathematics	Slides
Portfolio Presentation	Critical Comparison and Aesthetic Evaluation
Daily Vocabulary	Journal
Guest Speakers	Field trips

MATERIALS USED IN TEACHING THE COURSE: In addition to the basic text (*mandatory information – Title, Author, Copyright Date and Publisher*), a variety of instructional tools will be used to meet the needs of all students

Basic texts: Architecture Drafting and Design; Helper- Walsh; 1998; Glencoe McGraw Hill
ISBN 0-02-637067-0
Harnessing AutoCAD 2000; Stellman-Krishnan; 1999; AutoDesk Press

Supplementary materials:

- AutoCAD 2000 Software
- A History of Architecture, 2ND Edition; Spiro Kostof; ;1995; Oxford University Press; ISBN 0-19-508378-4
- Gardners Art Through The Ages; Tansey- kleiner; Harcourt Brace
- ISBN 0-02-677102-0Help for the Home Builder
City of Long Beach
Planning and Building Department
www.ci.long-beach.ca.us/plan/helphome
- Design Drawing; Francis D.K. Ching; 1997; John Wiley and Sons, Inc.; ISBN 0-471-28654-0
- Residential Housing and Interiors; Kicklighter; 1998; Goodheart-Wilcox Inc.; ISBN 1-56637-429-4

EVALUATION: Student achievement in this course will be measured using multiple assessment tools including but not limited to: (a grading scale and/or rubric should be included)

These program standards are to assist students in maintaining a professional attitude in the classroom. The standards that follow are important to the final grade in this class. Each completed project/drawing should be evaluated on the basis of these criteria.

The following is the grading policy for this class.

- All work will be graded for completeness, application of information given, quality of workmanship and graphic presentation, and scored on a point system (usually 0-100).
- Test and Quizzes will be graded on points equaling the number of questions.
- The grading scale will be as follows:

Projects	= 50% of each reported grade	A = 90-100%
Class participation	= 10% “ “ “ “	B = 79-89%
Quizzes and test	= 10% “ “ “ “	C = 68-78%
Portfolio	= 10% “ “ “ “	D = 57-67%
Aesthetic Journal	= 10% “ “ “ “	F = Below57%
Final Exam	= 10% “ “ “ “	
Total	= 100%	

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