4.500 Introduction to Design Computing
Fall 2008

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Lecture 1
Course Overview

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[2] Design

[3] Computers in the Field of Architecture

[4] CAD

[5] Designing a Cabin on the Beach
Architectural Design
Architectural Design

A process of problem solving and problem setting to produce design products

It is a creative process in search of high quality design results

Design is used to determine appearance, function, form and detail
**Design:**

**PROBLEM SETTING** = Idea Building

**Design:**

**PROBLEM SOLVING** = Subdividing Ideas into Constructible parts
[2]

Creative Design
Creative Process

Object Creation
(Physical Model)

Reflection/View
(Discussion Around Model)

Manipulation/Change
(New Physical Model)
Creative Process

Designer

A

Text

Consultants

B

Construction Consultants

C

D

Building
[3]

Computers in the Field of Architecture
Computers

Architects use computers to create documents and build

Sometimes renderings

On occasion build – digital fabrication
[4]
CAD
Types of Documents (CADD)

CAD DRAWINGS ARE FOR:

Sketches

Drawing

Models

Renderings

CAD files for building
DESIGN DRAWINGS

Lines Close

Lines are broken into categories or layers

Accuracy counts
Designing a Cabin
• High ceiling helps keep indoor air cooler
• Balconies provide sheltered areas for work and relaxation
• Big windows allow for ample views of the scenery
• Full kitchen for self-sufficiency
• Daylight is controlled for plenty of light but not excessive heat gain
• Covered exposed joists with a surface to diffuse light from new window
• Corner window by the desk for better views
• Added Steps
• Bigger window
• Removed window from the kitchen
Project Presentation Exam

1. Description
2. Site Plan
3. Floor Plan
4. Elevation
5. Section
6. Rendering Axonometric – Monochrome
7. Rendering – Texture Mapped*
8. Model Section - Detail – 1:6
9. Model Section - Detail 1:1
10. Rendering Detail – Monochrome*

*Optional

- Project Exam is a paper turn in and a slide presentation