Department of Architecture • Southern Polytechnic State University
Spring 2012: Design Communication II: DFN 2242

Spring 2012 • Monday & Wednesday 10:00 – 11:50 • Room M136
Professor: Christopher Welty, Assoc. AIA

Contact Information:
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Office N151: Office Hours: MW 9:00-10:00, F 9:00-12:00 & by appointment

Educational Goals and Objectives

• To enhance basic visualization and representation skills developed in Foundation Studio I, II and III, and to draw objects and architectural structures in two- and three-dimensions using both conventional and computational media.
• To develop skills in techniques of computer 3D modeling and rendering to represent information and/or concepts of built form and design.
• To develop architectural presentation skills through composite techniques using basic Photoshop features and board layout strategy.

Studio/Classroom Policies

DFN 2242 intends to highlight presentation techniques through a series of projects ranging from two-dimensional page layout for reports to three-dimensional computer modeling and animation for built forms and buildings. Both small-scale objects and moderate scale structures/buildings will be used as base information to represent concepts of design and techniques of representation. Stress shall be made to draw structures to its utmost details.

- Every class session is a full working session where you will have to accomplish and/or advance your assigned project. Often there will be a class assignment following the lecture, to be accomplished by the end of the class period.
- During class, ideas and information related to the main objectives will be presented via lectures, sketches, photocopies, and assignments. Individual desk critique to develop assigned project will be the primary instruction method.
- Not following the direction and guidelines of the assignments will affect the grade. Project/s not developed in class with the professor's guidance will not be accepted and will automatically receive a grade of "F", no matter what quality it may be.
- Students will be required to complete all assignments, and participate in class discussion/reviews. Criticism is a significant criterion for development of design ideas in this course.
- Music and loud voices will not be allowed during class sessions.
- Cell phone use will not be permitted during class, including text messaging. Make sure your phone is set to silent before the beginning of each session.

Textbooks

Primary References
Class hand-outs
Class Website: http://fac.web.spsu.edu/architecture/classes/DFN2242/

Optional Reference Books
Into 3D with form•Z: Modeling, Rendering, Animation, Lachmi Khemlani (McGraw-Hill)
Architectural Drawing: A Visual Compendium of Types and Methods, Rendow Yee (John Wiley)
Axonometric and Oblique Drawing: A 3D Construction, Rendering, and Design Guide, M. S. Uddin (McGraw-Hill)
Architectural Rendering Techniques, Mike Lin (John Wiley)

Additional Reference Books
Form-Z Modeling for Digital Visual Effects and Animation, David Rindner
Digital Architecture: Turn Vision into Virtual Reality with 3D Graphics, M. S. Uddin
Architectural Graphics; Francis D. K. Ching
Graphics for Architecture, Kevin Forseth
Manual of Graphic Techniques - 4, Porter and Goodman
Entourage, A Tracing File, Ernest Burden
Rendering with Pen and Ink, Robert W. Gill
Composite Drawing: Techniques for Architectural Design Presentation, M. S. Uddin

Supplies/Material List

Required Materials:
Personal Copy of Form-Z Student Version Software (www.formz.com)
Computer hardware, software, and recordable media (CD's or flash drives)
Photo-quality ink-jet paper for large format printing
Semi-gloss photo-quality ink-jet paper for large format printing

All drafting equipment and supplies
Technical Pens (Rapidographs) and Drawing Ink
Trash or Velum 18" x 24"
All model making equipment and supplies

Additional equipment may be required as the class progresses, especially at the end of the semester. At all times bring your supplies to class. Be prepared for in-class assignments.

Class Policies

Attendance is mandatory. A student is required to be present through the entire duration of the class. Coming late to class and/or leaving early will be considered as one half absent. Two such absences will constitute a full absence. Absences will affect and lower an individual's grade. Every absence after the third (3) will result into lowering your final grade by **10% per absence**.

In the event of an absence, the faculty member is not responsible for updating students on the information/handout they missed by not attending class.

Project Submissions
Projects and assignments will constitute the major portion of your total final grade.

Late project submissions will not be accepted.

In the event of unforeseen circumstances beyond the student's control, work may be accepted with penalty (each day late will lower the grade by one letter grade) but only with the approval of the professor. If approved, late work must be received prior to the start of the following class. Work will not be accepted via email. A late project will be penalized rarely receive higher than a "C" letter grade (70 points).

Academic Honesty
Plagiarism and/or turning someone else's work in for credit are ground for failing the project and possibly the entire course.

Individuals Needing Accommodation
Any student needing special accommodations due to a disability must inform the instructor at the start of the semester and mutually develop an accessibility plan.

Project Cost
Every assigned project will require submitting certain forms of tangible end products for the purpose of assessment. To submit a professional quality design and presentation work each project will require some expenses in materials and supplies. Depending on the presentation technique you choose each project may run between $10 and $100.

Evaluations

A student will be evaluated individually on his/her:

- Quality of design and presentation / exercise success
- Timely submission of project
- Project Grades
- Class attendance
- Class performance

The final course grade will be determined based on the following percentages:

Lab Assignments & Homework Exercises:	50%
Mid-term Building Research Project	15%
Final 3D Model & Presentation	35%

The grading is based upon the timely completion and final result of each assignment, its process and development, clarity and preciseness in execution in accordance with the assignment guidelines. The grading scale is shown below (+ and – may be assigned to categorize levels within a letter grades).

A	90 - 100	Excellent/superior	B	80 - 89	Above average		
C	70 - 79	Average	D	60 - 69	Below average	F	59 and below

Course Content

- Introduction to Photoshop, Photoshop entourage for architectural environment
- Hand-drawn architectural forms rendered in Photoshop
- Photoshop rendering of a hand-drawn perspective
- Introduction to form-Z 3D model. Small structure modeled and rendered in form-Z
- Design of a chair/object in form-Z
- Hand-drawn presentation drawings of a noted architectural building (plan, elevation, section, axonometric)
- Form-Z 3D model and rendered images of the hand-drawn building
- Board layouts of the rendered building

Important Dates

Spring 2012 Dates
Important Dates

9-Jan	First Day of Classes
16-Jan	**MLK Holiday**
30-Jan	Engagement Reports Due
23-Feb	Mid term grades due
28-Feb	Withdraw Day
5-9-Mar	**Spring Break**
30-Apr	Last Day of Classes
2-May	Finals Start
9-May	Senior Grades Due Noon
12-May	Graduation
14-May	Grades Due

Course Schedule

Week 01:	
Day 1	Syllabus Introduction, Paraline Review, Axonometric Exercise Introduced
Day 2	Axonometric Completion, Scan work for next PhotoShop class.
Week 02:	
Day 1	**MLK Holiday** (Tues - Finish Axo or PhotoShop color on Hand Drawn Axonometric)
Day 2	PhotoShop Texture on Hand Drawn Axonometric
Week 03:	
Day 1	Digital Exercises - Entourage Exterior Perspective
Day 2	Digital Exercises - Entourage Interior Perspective
	Mid-term Project Issued
Week 04:	
Day 1	Hand Drafted Plans of Selected Project
Day 2	Hand Drafted Elevations
Week 05:	
Day 1	Hand Drafted Roof & Site Plans
Day 2	Hand Drafted Section and/or Axonometric
Week 06:	
Day 1	Review Presentation & Analysis Drawings
Day 2	***Mid-term Project Due & Review***
Week 07:	
Day 1	Form Z Introduction & Settings (Draft Plans and Elevations)
Day 2	Form Z Drafting - Draft Plans and Elevations
	2/23/2012 - Mid term grades due
Week 08:	
Day 1	Z - Tools, Basic Shapes: Exercise Simple Structure
Day 2	Z - More Shapes and Techniques: Exercise - Vertical Circulation
Week 09:	
Day 1	**Spring Break**
Day 2	**Spring Break**
Week 10:	
Day 1	Z - Objects, Clock
Day 2	Z - Objects, Rietveld's Chair
Week 11:	
Day 1	Presentation Examples & FormZ Review
Day 2	Z - Complex Shapes - Terrain Models
Week 12:	
Day 1	Z - Precision Input & Tools
Day 2	Z - Textures Explored
Week 13:	
Day 1	Z - Derivatives, Sweeps & Revolutions
Day 2	Z - Architectural Elements, Door
	Final Project Issued
Week 14:	
Day 1	Z - Computer Lighting Techniques
Day 2	Z - Modeling, Balcony Shop Drawing
Week 15:	
Day 1	Z - Modeling, Loft Exercise
Day 2	Z - Rendered Images + Final Model Development
Week 16:	
Day 1	Z - Final Model Development
Day 2	Z - Animation & Final Project Worksession
Week 17:	
Day 1	Final Project Presentations