

ARCH XXX

ARCHITECTURAL FOUNDATION II

2 credits: 1 class hour, 2 lab hours

Course Description: The materials, methods and stages of designing through architectural models and presentation drawings. Scope of work will include a construction of a staircase, a topography model, presentation for an urban environment, a noteworthy contemporary house, and the preparation of a design portfolio

Prerequisites: Math certification and ARXXX or ENTXXX (STXXX)

Suggested Text: Designing with Models, by Chris B. Mills, John Wiley & Sons, 2000 [ISBN: 047124589X]

Architectural Graphics, by Frank Ching, 4th Edition, John Wiley & Sons, 2000 [ISBN: 1471209066]

Modelmaking: A Basic Guide, by Martha Sutherland, W.W. Norton & Co., 1999 [ISBN: 0393730425]

Attendance Policy: No more than 2 absences are permitted during the semester. For the purposes of record, two late arrivals are equal to one absence. Exceeding this limit will expose the student to failing at the discretion of the instructor.

Required Text/Tools: No textbook is assigned; however, students are required to buy the tools on the attached list. Students are required to bring their own supplies and materials after the first class. Students will be required to view professionally executed models such as those in the Museum of Modern Art's Collection or those on display at other Museums/Architecture Centers. Students will also observe models constructed by our former students in some of the more advanced courses.

Learning Objectives:

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

1. Demonstration of basic proficiency in the use of model making and presentation drawing techniques.
2. Production of quick massing and study models as required for future design courses and in the professional environment.
3. Creation of sketches and drawings as preliminary study representations
4. Production of high quality presentation drawings and finished models of building sites and building exterior and interiors.
5. Clear understanding of what should and should not be incorporated into a professionally executed architectural model and presentation.
6. Demonstrate an understanding of how to begin designing through modeling.

Evaluation and Grading:

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Every project will be graded and the student's progress evaluated and monitored. Factors affecting the grade will be **craftsmanship, accuracy, resourcefulness, and creativity** in producing models. Professional presentation and punctuality in meeting deadlines will be stressed. Unexcused absences or repeated lateness will result in a lower final grade. Class participation and completion of extra credit assignments will raise a student's final grade.

Grading allocation: Projects 1 & 210%
Urban Plaza..... 30%
Contemporary house project.....40%
Final portfolio presentation.....20%

Course Outline:

Week 1: Discussion of the function of architectural models and drawings in the design process and articulating ideas.

Introduction to materials and tools: Students will review basic materials to be covered over the semester (chipboard, foam core, bass wood (sheets and sticks), museum board, Plexiglas, basic tools such as mat knife, cutting edge, adhesives and tool construction.

Material Demonstration: Working with chipboard

Model Warm Up: Given a simple set of stair drawings, construct a scaled chipboard model using layout techniques demonstrated in class.

Homework: Complete staircase model with highest craft and accuracy.

Week 2: Critical group discussion and review of staircase models (craftsmanship and accuracy.)

Lecture and Demonstration: "Constructing Topography" (reading a survey, slope, datum and constructing a sturdy base for models.) Demonstration on constructing an economical contour model from site plan.

Model Warm Up: Given a site plan, construct a chipboard contour model accurately according to data on drawing.

Homework: Complete contour model.

Week 3: Introduction to Urban Plaza Project
Lecture: Introduction of the assigned site. Explore site potential with given program.
Discussion of expectations of a Site/Context Model

Students to be given a set of schematic 1/8" scale drawings of Greenacre Park, showing the sizes of the various spaces, tree location, grade changes, and the surrounding buildings. Group discussion will be centered on what scale to construct a finished presentation model, what should and should not go into it, what materials to use, what to avoid. Digital photographs of the site to be presented to the class. Discussion of what to look for in inspecting the site and how to go about doing perspective views of the space. In class students will be assigned to sketch perspective views of the room, hall or architectural models which will be displayed in the room.

Homework: students to visit the site, prepare site perspective sketches and prepare a site report and sketches of their observations. (Materials, sizes of trees, etc)

They should also come to next class prepared to start working on their urban plaza model.

Week 4: Lecture: Constructing the base, different levels, sunken plaza, surrounding walls. Students to work in class and complete this aspect of the model for homework

Week 5: Lecture on constructing the trellis, waterfall, various options for showing textured walls. Students to work in class

Week 6: Lecture: Presentation Techniques in models and drawings: entourage, People, cars, trees, texture, shade and shadow
Review shade / shadow for drawings

Homework: Final model due at the beginning of the next class

Week 7: Final presentation model of urban plaza due.

Group critiques. Brief lesson on photographing models.

Lecture of presentation drawing techniques. Drawing presentation plans, sections and elevations of the project just completed.

Homework: Complete final drawings for pin-up next week

Week 8: Pin-Up presentation of Urban Plaza drawings. Group critique

Introduction of Contemporary House Project

Instructor to have a wide array of previously executed house models. Class discussion of what makes models successful, what to avoid, determining the proper scale, building the landscape, etc.

A list of suggested houses will be provided by the Instructor. Discussion of how to go about getting the required information

Homework: Compile research material for house project selected from list of approved projects. Students should research house of their choice and come in next week with a complete set of plans, sections, and elevations for their selected house, drawn to a scale of 1/8th or 1/4" scale.

Week 9: Lecture: How to go about starting this model. Do a preliminary massing model to become familiar with the project, especially if it is a complicated structure; Discussion of materials to be used in the final model; Demonstration of the various options and techniques.
Work in class in the study model

Homework: Complete massing study model (with windows drawn in) and come prepared to start work in class on the final model

Week 10: Lecture on creating windows, roof textures, stone walls, placing scale people. Work in class starting the final model

Homework: Complete the final model of the basic structure

Week 11: Lecture: Landscaping representation: water and landscaping in models, trees, entourage, etc

Homework: Work on final model and determine final presentation layout for the drawings of the house project

Week 12: Lecture: "Story Telling" - Layout and Representation

Homework: Complete final model and presentation drawings for class pin-up next week

Week 13: Pin-Up presentation of Contemporary House

Students present final house project to a panel of critics.

Photograph models for portfolio.

Homework: Research successful websites for architectural presentation ideas

Week 14: Discussion of preparation of a portfolio of projects completed in this course. Lecture on photographing all the projects, format to be used, size of portfolio, PowerPoint presentations, etc.

Week 15: Final presentation to a panel of jurors of the entire semester's work

Required for the class

- Matte cutting knife
- X-acto knife with #11 blades
- 18" steel ruler with cork backing
- 8" metal triangle
- Plastic triangles
- Architects' scale
- White glue
- Arc-drawing tool(s): French curves or ship's curve
- Drafting tape
- Tweezers
- Cutting mat (preferably vinyl, but students may use cardboard)
- Drafting instruments/papers required in AR 111

Optional

- Ducco or acetate adhesive
- Hot glue gun
- Soldering iron (for aluminum or copper connections)
- Artist's spray adhesive
- Modeling saw and mitre box
- Fine sandpaper
- Pins
- Side cutters
- Dremel