

Appalachian State University

Department of Technology

Course Syllabus -- TEC 3021

Course Number and Title: TEC 3021, Architectural Drafting and Design, Fall, 2000

Course Description: TEC 3021 is an intensive introduction to the concepts and practice of residential architectural design. Students will study the design work of prominent architects and designers in order to expand their design boundaries. They will learn the skills necessary for mechanical sketching and drafting, but will focus on the use of Computer-Aided Drafting and Design, specifically AutoCAD 14. The course will examine sizing of structural members, materials selection, energy efficient design, moisture and air leakage control, as well as how to produce an aesthetic and functional building design.

Credits: 3

Meeting Times and Place: M, W 1:00 pm - 2:45 pm, Moberg room and CAD lab Kerr-Scott Building

Instructor: Jeff Tiller, PE

Office Hours: posted on office door

Phone Number: 262-6355 (office), 264-9542 (home)

Course Goals: Students in the course shall:

1. Learn the process of designing residential buildings and see how well known architects have approached design
2. Learn different design philosophies
3. Master the use of basic drafting skills, with and without a straight-edge, such as lettering, line drawing, fills, dimensioning, and rendering
4. Become comfortable with the use of AutoCAD 14 for drafting residential buildings
5. Be able to design the structure of a home and size the structural elements
6. Improve the aesthetics, functionality, and buildability of their designs
7. Complete several design projects, ranging from short-term sketching to a semester design project consisting of a complete set of drawings for a new home

Topical Content Outline:

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|--------------------------------------|------------------------------------|
| 1. Design process | 7. Materials and finishes |
| 2. Architects and residential design | 8. Model building |
| 3. Required residential drawings | 9. Guidelines for superior designs |
| 4. Basics of CAD | 10. Envelope details |
| 5. Sketching and lettering | 11. Interior details |
| 6. Structural design | 12. Semester project |

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Methods of Teaching: Lectures, discussions, field visits, charettes, in-class reviews
student presentations, student critiques and reviews

Textbooks: *Architectural Drawing and Light Construction*, Edward J. Muller, James G. Fausett,
Phillip A. Grau. Prentice-Hall, New Jersey. 1996. (Fifth printing) The instructor suggests that you
pick up a book on using AutoCAD. No specific text is recommended.

Requirements:

- Attend class -- three unexcused absences or six tardies will reduce overall average 5 points
- Complete class readings, homework, design projects
- Turn in semester project -- complete architectural and site drawings for a residence
- Work hard to improve your skills

Basis of class grade:

Classroom participation	10 points
(based on attendance and participation in classroom discussions and activities)	
Homework/ Drafting/ CAD Assignments	15 to 25 points
Project	40 to 55 points
Quizzes	15 to 25 points
TOTAL BASIS	100 points

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First day of class:

Review syllabus

Let class introduce themselves along with roll

Built anything?

Design experience?

Own property?

Drafting?

ACAD?

What makes a residence "good"?

Handout assignment

Read Chapters 3 and 8