

University of Arkansas – Fort Smith

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General Syllabus

CGT 2634 – Architectural Materials

Credit Hours: 4

Lecture Hours: 2

Lab Hours: 4

Prerequisite: CGT 1284 Engineering Graphics II

Effective Semester: Summer I 2013

I. Course Information

A. Catalog Description

Introduction to the concepts and common terminology used by the architectural industry. Information used for conventions, views, materials, details and codes used by architects.

B. Additional Information

The course progresses from Engineering Graphics I and II. Broad based skills and information are presented which relate directly to current standards of architectural drafting. The students will complete detail drawings, section drawings and plan drawings

II. Student Learning Outcomes

A. Subject Matter

1. Physical Materials
 - a. Wood construction – nominal sizes, common usage, drawing techniques
 - b. Steel construction – nominal sizes, common usage, drawing techniques
 - c. Masonry construction – nominal sizes, common usage, drawing techniques
2. Construction Systems
 - a. Roofing
 - b. Foundation
 - c. Wall
 - d. HVAC
 - e. Electrical
 - f. Plumbing
3. Codes and ADA
 - a. Americans with Disabilities Act
 - b. Southern Building Code
4. Construction Drawings
 - a. Detail drawings such as Footing and Cabinet details
 - b. Building section drawings which include foundation, wall and roof
 - c. Working drawings for a structure

B. University Learning Outcomes

Communication Skills

Students will be prepared to present their drawings or other work products to their classmates and instructor.

Technological Skills

Students will use software applications to transfer technical principles, ideas and theories to new situations. Students will create examples, apply principles and/or demonstrate an ability or skill in the creation of working drawings, specifications and other industry specific applications using the software available for the specific project.

Quantitative Reasoning

Students will be required to apply accurate dimensioning principles to all working drawings that are completed.

III. Major Course Topics

A. Professional Knowledge

1. Architectural symbols, nomenclature, abbreviations, and definitions
2. CADD Architectural Graphic standards for Sheets and Layers
3. Elements of set of working drawings including plans, elevations, sections and details
4. Components of construction including materials, nominal sizes, and forces.

B. Visualization Skills

1. Participate in small group projects based on architectural drafting skills
2. Create and describe various types of drawings.
3. Understand and integrate drawings from one file type to another
4. Analyze example drawings for the various elements of working drawings