

University of Arkansas - Fort Smith
5210 Grand Avenue
P. O. Box 3649
Fort Smith, AR 72913-3649
479-788-7000

General Syllabus

DFTG 2534 Architectural Computer-Aided Design (CAD) Applications

Credit Hours: 4

Lecture Hours: 4

Lab Hours: 0

Prerequisite: DFTG 1234 Engineering Graphics or consent of instructor

Effective Catalog: 2023-2024

I. Course Information

A. Catalog Description

This course provides an in-depth study of architectural software. The student will learn how to utilize the software in architectural, structural, and MEP (mechanical, electrical, plumbing) applications and will generate working drawings and rendered scenes.

B. Additional Information

This course will provide the students with leading edge technology in the building design profession. Learning this software will increase productivity and accuracy of true modeling while preserving the production-drawing process. The software allows 3D design tools that are seamlessly integrated into the production environment.

II. Student Learning Outcomes

A. Subject Matter

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

1. Discuss the theory behind architectural drawings.
2. Define practices of architectural drawings using 3D software.
3. Define practices of architectural drawings using CAD Standards.
4. Create typical industry standard architectural drawings.
5. Print architectural drawings to industry standard scales.
6. Create rendered images of building models produced in the class.

B. University Learning Outcomes

This course enhances student abilities in the following areas:

Analytical Skills

Critical Thinking Skills - Students will create a building model that integrates the various required aspects of a commercial building, including architectural, structural, and MEP (mechanical/electrical/plumbing) features.

II. Major Course Topics

- A. 3D architectural software concepts
- B. Basic building components
- C. Architectural drawing requirements & standards
- D. Introduction to structural systems
- E. Annotation standards
- F. Interior design
- G. Introduction to Mechanical, Electrical, and Plumbing (MEP) systems
- H. Creating site plans and basic renderings
- I. Creating sheet sets