University of Arkansas – Fort Smith

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General Syllabus

CGT 2654 - Architectural CAD Applications

Credit Hours: 4 Lecture Hours: 2 Prerequisite or Corequisite: CGT 1644 – 3D Visualization Effective Semester: Summer I, 2013 Lab Hours: 4

I. Course Information

A. Catalog Description

An in-depth study of the latest release of architectural software. The student generates 3D working drawings with rendered scenes from any angle in real-time. Current market trends and job availability reviewed.

B. Additional Course 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 Architectural Graphic Standards.
- 4. Create typical industry standard architectural drawings.
- 5. Print architectural drawings to industry standard scale
- 6. Discuss market trends, strategies and employment opportunities.

B. University Learning Outcomes

Communication Skills

Students will develop skills in communicating with their supervisors concerning their work and the work environment. Students will be prepared to present their drawings or other work products to their supervisors and instructor. Students will develop skills in the preparation of specifications which are a part of the legal contract documents.

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 architectural working drawings, specifications, and other industry specific applications using the software available at the specific office in which they intern.

Quantitative Reasoning

Students will be required to apply accurate dimensioning principles to all working drawings that are completed. Students will be required to complete the quantitative reasoning required in computing text height, line type scale, dimension scale, and print scale.

III. Major Course Topics

A. Professional Knowledge

- 1. 3D architectural software concepts
- 2. Architectural Graphic standards
- 3. Elements of set of working drawings
- 4. Export Drawings to different file types

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