

University of Arkansas - Fort Smith
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General Syllabus

BSAT 4003 Engineering and Architecture Applications

Credit Hours: 3

Lecture Hours: 2

Laboratory Hours: 2

Prerequisites: Junior standing or CGT 2684 Digital Design Level II or CGT 2834 Machine Drawing and Design or CGT 2654 Architectural CAD Applications

Effective Catalog: 2018-2019

I. Course Information

A. Catalog Description

3D architectural and engineering software will be utilized to create proper environments for animations. Recreation of bridge and building disasters as well as walk-through animations of historic recreations and modern architecture will be included.

B. Additional Information – N/A

II. Student Learning Outcomes

A. Subject Matter

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

1. Produce a three dimensional model of an architectural or engineering project.
2. Examine drawings to extract required information for modeling the object or project in three dimensions.
3. Apply the concepts and elements of historic or modern materials application to three-dimensional architectural and engineering models.
4. Accurately representing specific architectural structures or engineering models.
5. Interpret how to illustrate failure points in structures or objects in order to animate failure.
6. Analyze the resulting model to determine if the process did produce a model, which accurately reflects the original or intended purpose.

B. University Learning Outcomes

This course enhances student abilities in the following areas:

Analytical Skills

Quantitative Reasoning: Students will apply math and science knowledge when reading and analyzing models to solve problems. Applied animation projects will require quantitative reasoning.

III. Major Course Topics

- A. 3D architectural and engineering software
- B. Recreating 3D models of bridge and building disasters
- C. Walk-through animations of historic recreations and modern architecture
- D. Examine drawings to extract required information
- E. Historic and modern materials application to three-dimensional architectural and engineering models