

**University of Arkansas - Fort Smith**  
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**Fort Smith, AR 72913-3649**  
**479-788-7000**

## **General Syllabus**

### **BSAT 3084 3D Advanced Concepts**

Credit Hours: 4

Lecture Hours: 2

Laboratory Hours: 4

Prerequisite: 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**

Intensive application of advanced 3D gaming software packages.

##### **B. Additional Information**

Modeling features to include within a game engine software package. Models will include examples from Mechanical and Architectural including walk through of buildings. 3D terrain modeling will allow for the development of advanced 3D cartography models.

#### **II. Student Learning Outcomes**

##### **A. Subject Matter**

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

1. Analyze and apply basic elements of game development.
2. Compare and contrast game environments including triggers, events, and actors.
3. Evaluate the development of an architectural walk-through.
4. Create 3D terrain models.

##### **B. University Learning Outcomes**

This course enhances student abilities in the following areas:

##### **Communication Skills (written and oral)**

Students will be able to communicate effectively with a variety of audiences using the international graphical communication language.

**Analytical Skills**

**Quantitative Reasoning:** Students will use mathematical formulas to coordinate movement within animation.

**III. Major Course Topics**

- A. Differentiate of 3D solid models in game environment
- B. Manipulate the Game Triggers
- C. First and third person games
- D. History of electronic gaming
- E. Platforms, player modes, genre, story and character development