



# Broward Community College

## Course Outline

STATUS:   A  

COMMON COURSE NUMBER:   TAR 2144C  

COURSE TITLE:   3D Architecture Space and Animation  

CREDIT HOURS:       3      

**CONTACT HOURS BREAKDOWN:**

Lecture/Discussion	<u>      32      </u>
Lab	<u>      32      </u>
Other	<u>                  </u>
Contact Hours/Week	<u>      4      </u>

**CATALOG COURSE DESCRIPTION:**

**3D Architecture Space and Animation is the last of a series of classes in 3D modeling and rendering that enable architects to pre-visualize the completion of a building, illuminating design-related issues before costly construction begins. Animation provides a sense of space and context of a building, bringing the ideas of the architect to life for the firm's and client's better understanding.**

Prerequisite: TAR 2142C 3D Rendering

Corequisite:

**UNIT TITLES:**

1. Terminology and Vocabulary Related to Animation
2. Composition and Staging
3. Order and Design for a Well Planned Cinematic Motion
4. Creating a Space-Time Relationship
5. Creating a Living Scene
6. Pre-Visualization as a Final Presentation

LAST REVIEW   Academic Year 2002-2003   NEXT REVIEW   Academic Year 2007-08  

*Interim Revision Dates:*

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## **I. Course Overview:**

This course is designed to bring the architectural models rendered in the previous class to life through animation. Camera perspective and movement is carefully storyboarded to script out the best views of the model and its environment. Pacing and movement will be tweaked to fix last-minute problems. Finally, the cinematic walk-through and flyovers will be rendered as high-resolution movies for client approvals.

## **II. Units:**

### **Unit 1. Terminology and Vocabulary Related to Animation**

#### General Outcome:

- 1.0 The students should be able to recognize, understand and be able to explain vocabulary and concepts related to 3D architecture space and animation.

#### Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 1.1 Understand the meaning of the vocabulary in the industry.
- 1.2 Explain visualization of projects using specialized terminology.
- 1.3 Know the interfacing of the software required for course.

## Unit 2. Composition and Staging

### General Outcome:

- 2.0 The students should be able to understand how to develop a layout using principles of composition and be able to recognize and describe shots in filmmakers terms.

### Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 2.1 Understand that composition is the layout of an entire rendering and that staging is the arrangement of the objects and characters in a shot.
- 2.2 Understand that the language of film involves a variety of basic shots and learn to recognize and describe shots in the terms that filmmakers use in order to be able to plan and discuss digital production and adopt cinematic techniques to tell a story.
- 2.3 Identify the elements and function of a shot and how to change the appearance and function of a shot by camera placement to render the scene.
- 2.4 Learn that framing is the art of how to position subjects within the images rendered; and understand that how a scene is framed will determine what objects will be visible in the rendering and how the space within the image will be divided.
- 2.5 Apply these camera concepts using the required software.

### **Unit 3. Order and Design for a Well-Planned Cinematic Motion**

#### General Outcome:

- 3.0 The students should be able to understand and execute the order and design for a well-planned cinematic motion.

#### Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 3.1 Understand and check the existing model for textures, lighting and other elements of a scene.
- 3.2 Create and plan a storyboard checking for consistency and logic.
- 3.3 Learn how to animate the camera through the path that is created in the storyboard.
- 3.4 Understand that a well-done visualization depends on the terms of how realistic the scene could be by using extra animations, natural effects or movement of a prop in the scene.

## Unit 4. Creating a Space-Time Relationship

### General Outcome:

- 4.0 The students should be able to understand how to create a space-time relationship

### Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 4.1 Understand that time is related directly to the movement of an object or a camera.
- 4.2 Learn how to work with lapses of time in the software that will be used.
- 4.3 Adjust the pace of animation to match the sort after direction

## Unit 5. Creating a Living Scene

### General Outcome:

- 5.0 The students should be able to understand all the elements that constitute a living space.

### Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 5.1 Create fog, water, fire or any natural element that will enhance the animation.
- 5.2 Animate all other objects in the scene.
- 5.3 Understand how to animate soft bodies such as cloth and drapery.
- 5.4 Animate the lights for the creation of day and night scenes.

## Unit 6. Pre-Visualization Test

### General Outcome:

- 5.0 The students should be able to understand all the elements in a pre-visualization test to assure that nothing is left to chance.

### Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 6.1 Check the animation with a test render in low resolution and by wire frame or shade for faster results.
- 6.2 Adjust all problems in the curve animation with the animation editors in the software used.

## Unit 7. Visualization as a Final Presentation

### General Outcome:

- 7.0 The students should be able to understand all the elements that constitute visualization as a final presentation.

### Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 7.1 Create a final high resolution visualization of the walkthrough with all the elements in a scene.
- 7.2 Critically evaluation the results of the final presentation in terms of the work environment and a client based situation.