Miami Dade College

Course Description

DIG2396C | Motion Capture | 4.00 credits

This course is for students majoring in Animation and Game Art. Students will learn digitizing motion and clean-up and editing techniques. They will also learn how to set up motion capture and shooting, data tracking, skeleton retargeting, as well as animation correction and enhancements. Pre/Corequisite: DIG1302 (4 hr. lecture)

Course Competencies:

Competency 1: The student will demonstrate knowledge of 3D animatics, layout and camera direction by:

1. Building a 3D animatic
2. Setting up the stage
3. Creating object and character movement
4. Manipulating camera direction
5. Editing the animatic

Learning Outcomes:

- Solve problems using critical and creative thinking and scientific reasoning
- Use computer and emerging technologies effectively

Competency 2: The student will demonstrate knowledge of modeling and production workflow by:

1. Compiling reference material
2. Creating drawings and sculptures
3. Choosing modeling techniques
4. Creating necessary blend shapes

Competency 3: The student will demonstrate knowledge of materials and textures by:

1. Assigning materials to geometry
2. Choosing material types
3. Creating original textures
4. Creating background plates

Learning Outcomes:

- Demonstrate an appreciation for aesthetics and creative activities

Competency 4: The student will demonstrate knowledge of character setup by:

1. Rigging the character
2. Binding the character
3. Creating facial systems for the character
4. Setting up secondary characters and secondary objects

Learning Outcomes:

- Use computer and emerging technologies effectively

Competency 5: The student will apply knowledge of animation by:

1. Defining and choosing animation styles
2. Blocking the scenes to be animated
3. Creating dope sheets for the project
4. Animating a character
5. Applying and computing forward kinematics and inverse kinematics
6. Animating facial expressions

Competency 6: The student will demonstrate knowledge of lighting and rendering by:

1. Choosing appropriate lighting attributes for the scene
2. Choosing natural versus artificial lighting
3. Applying shadows to characters and objects
4. Choosing from available lighting techniques
5. Rendering the scenes
6. Creating a lighting and rendering production workflow