**Mohawk Valley Community College**

**Utica and Rome, New York**

**Course Outline**

**GA103- Texturing C-1, P-4, Cr-3**

**Course Description:**

This course introduces the concepts of UV Unwrapping and Texturing to the polygonal modeling production pipeline. Through a series of hands-on assignments, students will learn about model UVs, proper unwrapping techniques, texel density, repeating textures, and the creation of materials for use in a variety of contemporary 3D platforms.

**Course Objectives:**

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

* UV unwrap simple and complex 3D objects
* Identify, create, and apply a variety of materials and textures for use in games and animations
* Efficiently arrange UVs in a UV sheet
* Create textured 3D models for various 3D applications
* Identify and create different art styles through different texturing and material techniques

**Major Topics:**

* UV Unwrapping
* Planning Textures for Mirroring/Duplicated Meshes
* Texel Density
* Repeating Textures
* Hand Painted Textures
* PBR Materials
* Normal, Bump, Ambient Occlusion, Alpha, Emissive, Metalness and Roughness Maps
* Texture Baking
* Outputting of Materials and Objects to Various 3D Engines

Reviewed July 2024