**Mohawk Valley Community College**

**Utica and Rome, New York**

**Course Outline**

**GA202- Lighting and Rendering C-1, P-4, Cr-3**

**Course Description:**

This course introduces techniques and concepts in lighting and rendering for 3D content creation. Through hands-on assignments, students will learn how to set up and edit virtual cameras, create natural and artificial lighting solutions, as well as construct model turntables and environment walkthroughs. This course also covers ways to apply post processing effects to achieve enhanced pre-rendered and real-time output.

**Course Objectives:**

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

* Create lighting to match a desired look and feel for a scene
* Create high quality still images and movie renders
* Develop pre-rendered and real-time lighting and rendering solutions
* Utilize light blooms, fog, and other environmental effects to enhance a scene
* Utilize post-processing enhancements in image and time based editing software
* Understand and apply the psychology of color and light when creating a scene.

**Major Topics:**

* Studio and 3 Point Lighting
* Environmental Lighting
* Environmental Effects
* Pre-rendered lighting solutions
* Real-time rendering lighting solutions
* Post Processing Renders
* Psychology of Light and Color
* Virtual Cameras
* Shot Composition

Reviewed July 2024