Revised 8/2010

NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY
CAD 238 -239 COMPUTER AIDED MODELING AND RENDERING I-II (3 CR.) (3 CR.)

Course Description

Focuses on training students in the contemporary techniques of 3D modeling, rendering, and animation on the personal computer. Introduces the principles of visualization, sometimes known as photo-realism, which enables the student to create presentation drawings for both architectural and industrial product design. Uses computer animation to produce walk-through that will bring the third dimension to architectural designs Lecture 3 hours per week.

General Course Purpose

Enabling students to develop better understanding of three-dimensional drawings as well as producing presentations through computer and electronic media.

Course Prerequisites/Co-requisites

Basic technical drawing and CAD exposure. Prerequisite for CAD 238 is CAD 202. Prerequisite for CAD 239 is CAD 238.

Course Objectives

Upon completion of this course the students will be able to:

- Generate a three dimensional model from a two-dimensional drawing.
- Provide various pictorial views of the model generated.
- Apply surface and material as well as light for the model.
- Develop a rendering of a typical electronic model.

Major Topics to be Included

a. Basic three-dimensional drawing
b. Three-dimensional surfaces
c. Solids
d. Material systems
e. Lighting systems
f. Three-dimensional rendering