

NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY
CAD 261 - COMPUTER AIDED DIGITAL TERRAIN MODELING AND EARTHWORKS (3 CR.)

Course Description

Introduces computer aided design for civil/surveying using digital terrain modeling and extracting earthwork volumes. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

General Course Purpose

This course is designed to give the student exposure to various factors influencing site design and problem solving as it pertains to land development.

Course Prerequisites/Co-requisites

Competence in basic CAD. Prerequisite for this course is CAD 260 - "Computer Applications for Surveyors and Technicians" or equivalent.

Course Objectives

Upon completion of this course, the student will:

- increase his/her skills in applying CAD in solving civil and site problems
- be able to produce site and profile drawings depicting infrastructure of a given development neighborhood or a project
- use the design information to provide estimate for cut and fill and earthwork

Major Topics to be Included

- a. Contour line generation and modification
- b. Drainage design, calculation, and drawing
- c. Utilities consideration in urban as well as suburban settings
- d. Introduction and utilization of 3D CAD as well as viewing 3D drawings