



COURSE OUTLINE

DRA 238
Course Number

Advanced Computer Aided Design
Course Title

3
Credits

2 / 2
Lecture/Laboratory Hours

COURSE DESCRIPTION

Advanced computer drafting course using AutoCAD software. Includes a review of units and limits, inquiry command options, display options, hatching and sectioning, text, and dimensioning, plus study of three-dimensional drawing and surface modeling.

Text(s): **Author(s):** Shumaker, Terence M.
 ISBN: 1-59070-608-0
 Edition / Copyright: 13th 2006 - Current Edition
 Publisher: Goodheart-Wilcox Co.

Secondary Text: **AutoCAD and Its Applications-Basics**
 AUTOCAD (latest edition)
 By T. Shumaker and D. Madsen
 Publisher: Goodheart-Wilcox
 (Textbook for DRA 190)

Prerequisites: **DRA 190**

Coordinator: J. Santosuosso

Latest Review: 2007

UNIT I: REVIEW OF AUTOCAD BASICS AND LARGE PROJECT PLANNING

- A. Unit Length: 10 weeks
- B. Unit Description:
A review of AutoCAD basics as covered in DRA 190 concurrently with large project planning principles, and the production of a large drawing using multiple scales. Solid modeling will be incorporated into the large project with rendering techniques.
- C. Grading:
Each student's project (final plot) will be graded indicating strengths and weaknesses. 65% of final grade

UNIT II: AUTOCAD IN 3D MODE-WIREFRAME, SURFACE AND SOLID MODELING.

- A. Unit Length: 4 weeks
- B. Unit Description:
An introduction to using AutoCAD in 3D. Wire framing, Surfaces and Solid Modeling will be used to construct 3D models of simple shapes.
- C. Grading:
Each 3D drawing will be graded and returned to the student. 20% of final grade.

UNIT III: OUTPUT TECHNIQUES IN AUTOCAD

- A. Unit Length: 1 week (partly concurrent with Unit I)
- B. Unit Description:
Using the inkjet plotter to produce documents with both AutoCAD and 3D rendering.
- C. Grading:
Grades for this unit will be included with Unit I.

TESTS AND QUIZZES

There will be several unannounced tests and quizzes related to the material covered. 15% of final grade.

FINAL GRADE CALCULATION

Final grades will be calculated by averaging all grades and weighing them as indicated above.

Academic Integrity Statement:

Students are expected to comply with the college-wide requirements for academic integrity. Mercer County Community College is committed to Academic Integrity—the honest, fair, and continuing pursuit of knowledge, free from fraud or deception. This implies that students are expected to be responsible for their own work. Presenting another individual's work as one's own and receiving excessive help from another individual will qualify as a violation of Academic Integrity. The entire policy on Academic Integrity is located in the Student handbook and is found on the college website:

http://www.mccc.edu/admissions_policies_integrity.shtml).