

**Miami University
School of Engineering and Applied Science
Department of Engineering Technology**

ENT 135	COMPUTER AIDED DRAFTING	3
Course Number	Title	Credit Hours

DESCRIPTION:

Study of drafting as the graphic language of industry and application of computer aided technology to two and three dimensional engineering drawings. Microcomputers are used.

PERIODS PER WEEK: 2 Lecture, 1 Lab

PREREQUISITE(S): none

CO-REQUISITE(S): none

TEXT:

Applying AutoCAD 2008 , ISBN # 978-0-07-880153-2
By Terry T. Wohlers Glencoe/McGraw-Hill 2008

METHOD OF EVALUATION:

The following is the distribution of credit for the required tasks:

Chapter Problems	25%
Class Attendance	10%
Exam 1	20%
Exam 2	20%
Final Exam (Project)	<u>25%</u>
Total	100%

Homework assignments, lab reports, notebooks and papers will be due on the assigned date. Work will not be accepted later than the next class meeting unless a prior arrangement has been made.

OBJECTIVES:

Upon Completion of this course, students will be able to:

- (1) Demonstrate the ability to create detail engineering drawings of parts and assemblies.
- (2) Demonstrate proficiency in use of AutoCAD ® (AUTODESK) software to facilitate engineering problem solving.

COURSE ASSESSMENT CRITERIA

This course is a constitute course and is therefore not directly assessed. It will contribute to **Outcome 1** "Knowledge of modern engineering computer aided design methods and techniques used in graphical representation of mechanical components"

ASSESSMENT TOOLS USED IN ENT 135

Employer Surveys
Graduate Surveys
Student Evaluations
Design/Lab Projects and Tests from ENT 235
Instructor Course Evaluation Form from ENT 235

COURSE OUTLINE

<u>Week</u>	<u>Topic</u>	<u>Chapters</u>
1	Groundwork	1-4
2	Hand-Sketching	Printed Handouts
3	Groundwork Cont....	5-9
4	Drawing Aids and Controls	10-11
5	Drawing Aids and Controls Cont....	12-14
6	Drawing and Editing	15-16
7	Drawing and Editing Cont....	17-19
8	Text & Tables	20-22
9	Preparing and Printing Drawing	23-26
10	Dimensioning	27
11	Advanced Dimensioning	28-29
12	Groups and Details	32-33
13	Groups and Details Cont...	34-35
14	3D Drawing and Modeling	38
15	3D Drawing/Solid Modeling	39
16	Design Project	
17	Final Exam/Design Project Due	

Miami University Learning Community:

Miami University is committed to fostering a supportive learning environment for all students irrespective of individual differences in gender, race, national origin, religion, handicapping conditions, sexual preferences, or age. Students should expect, and help create, a learning environment free from all prejudice. Disparaging comments, sexist or racist humor, or questioning the academic commitment of students based upon these individual differences are behaviors that undermine our learning community. If such behaviors occur in class, please seek the assistance of your instructor or department chair.

Prepared by:

Dr. Vipul Ranatunga, February 7, 2009.