

COURSE OUTLINE

Revision: Loc Nguyen - Date: February 2009

DEPARTMENT: Engineering & Engineering Technology

CURRICULUM: Computer-Aided Drafting/Design Technology

COURSE TITLE: Intermediate CAD - 2-D

COURSE NUMBER: TDR 133

TYPE OF COURSE: Vocational Preparatory/

COURSE LENGTH: 1 quarter

CREDIT HOURS: 3

LECTURE HOURS: 11

LAB HOURS: 44

CLASS SIZE: 18

PREREQUISITES: TDR 131 (Introduction to CAD 2D)

COURSE DESCRIPTION:

This course is designed to build on those skills developed during TDR 131. It will provide the students with additional instruction on how to use the advanced command of the AutoCAD micro-based CAD software.

STUDENT LEARNING OUTCOMES ADDRESSED:

1. Computation - Apply basic math operations to technical drawings.
Critical Thinking and Problem Solving - Identify problems and evaluate alternative solutions and apply appropriate analytical methods to develop optional solutions.
2. Technology - Demonstrate basic understanding of computer systems, and use AutoCAD software to create the engineering drawings.

STUDENT LEARNING OUTCOMES ADDRESSED: (cont.)

3. Information Literacy - Access and use information from a variety of resources/data
4. Personal Responsibility - Take pride and value in one's own work.

PROGRAM OUTCOMES ADDRESSED

- 1 Ability to apply knowledge of mathematics and scientific principles to technical engineering/drafting problems.
- 2 Ability to analyze and interpret data.
- 3 Ability to think critically in evaluating information, solving problems, and making decisions.
- 5 Ability to access and evaluate information from a variety of sources, including the Internet.
- 6 Understand professional and ethical responsibility.
- 7 Ability to communicate effectively with written, oral, and visual means.
- 8 Recognize the need for and ability to engage in life-long learning.
- 9 Ability to use modern technical engineering techniques, skills, and technology, including computing tools necessary for technical engineering/drafting practice.

GENERAL COURSE OBJECTIVES:

At the end of the course the student will:

1. Perform advanced editing operations on selected polylines and polyarcs.
2. Properly dimension a drawing and use AutoCAD's dimension variables.
3. Perform area and perimeter calculations on complex objects.
4. Construct blocks with attributes and use them in a drawing.
5. Create a bill of materials
6. Create viewpoints and viewpoint specific layers in proper sequence.
7. Make and view slides of AutoCAD drawings.
8. Plot completed drawings to a selected output device.

TOPICAL OUTLINE:	APPROX. HOURS
I. Review of all inquiry commands	5
II. Advanced polyline generation and editing	5
III. Advanced dimensioning, dimension styles	10
IV. Creating advanced selection set, noun/verb commands	5
V. Creating, displaying, editing and extracting attributes	10
VI. Using external references	5
VII. Using model space/paper space	10
VIII. Miscellaneous advanced 2-D support commands	5
Total	<u>55</u>

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