

COURSE OUTLINE

Revision: Loc Nguyen - Date: February 2009

DEPARTMENT:	Engineering & Engineering Technology
CURRICULUM:	Computer-Aided Drafting & Design Technology
COURSE TITLE:	Introduction to CAD 2-D
COURSE NUMBER:	TDR 131
TYPE OF COURSE:	Vocational Preparatory
COURSE LENGTH:	1 quarter
CREDIT HOURS:	3
LECTURE HOURS:	11
LAB HOURS:	44
CLASS SIZE:	18
PREREQUISITES:	TDR 121 (Drafting Technology I)

COURSE DESCRIPTION:

The objectives of this course are to provide the students with an understanding of the features, limitations and considerations associated with the operation of a computer-aided design/drafting (CAD) system. Students will gain valuable hands-on experience using the AutoCAD micro-based CAD software.

STUDENT LEARNING OUTCOMES ADDRESSED:

1. Technology - Use computer aided design software.
2. Critical Thinking and Problem Solving - Analyze problems and evaluate solutions.
3. Information Literacy - Use manuals to access data.

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. Identify CAD hardware components and system configuration.
2. Operate the CAD workstation components including the computer, input/output devices.
3. Explain the features, limitations and considerations associated with the commands and characteristics of AutoCAD.
4. Operate the AutoCAD release 12 software.
5. Create moderately detailed drawings.

TOPICAL OUTLINE:

APPROX. HOURS

I. Basic computer: hardware and software	5
II. Starting AutoCAD - drawing set-up	5
III. Cartesian coordinate system	9
IV. Drawing basic shapes	5
V. Geometric constructions and Object Snap.	5
VI. Drawing display options	9
VII. Editing command	5
VIII. Placing text on a drawing	5
IX. Basic dimensioning	<u>7</u>
Total	55

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