

COURSE OUTLINE

Revision: Loc Nguyen - Date: February 2009

DEPARTMENT: Drafting Technology

CURRICULUM: Drafting

COURSE TITLE: Drafting Technology II

COURSE NUMBER: TDR 123

TYPE OF COURSE: Vocational Preparatory/

COURSE LENGTH: 1 quarter

CREDIT HOURS: 4

LECTURE HOURS: 22

LAB HOURS: 44

CLASS SIZE: 24

PREREQUISITES:
TDR 121 (Drafting Technology I) or instructor's permission

COURSE DESCRIPTION:

Basic principles and practices involved in the creation of production drawings including: dimensions and tolerancing; sections; and auxiliary views. Emphasis on standard practices and variations permitted when required for clarity.

STUDENT LEARNING OUTCOMES ADDRESSED:

1. Communication - Read and translate technical data relative to geometric spatial relationships into a graphical form easily understood by others with similar technical understanding.
2. Computation - Use basic mathematical operations as required to define geometrical spatial relationships.

STUDENT LEARNING OUTCOMES ADDRESSED: (cont.)

3. Human Relations - Use social interactive skills to enhance learning through informal tutoring activities.
4. Critical Thinking and Problem Solving - Organize and evaluate technical data, as well as select and apply appropriate spatial relationship principles to determine problem solution.
5. Technology - Select and use appropriate technological tools to create technical graphics.
6. Personal Responsibility - Value and take pride in one's own skill and work, and manage time to meet required schedules.
7. Information Literacy - Access, evaluate and apply information from technical texts.

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.
- 4 Ability to function on diverse, multi-disciplinary teams.
- 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 COURSES OBJECTIVES:

At the end of the course the student will:

Module I Dimension and Tolerancing

1. Apply accepted principles and practices to the dimension and tolerancing of moderately complex single and multi-view mechanical drawings.

Module II - Section Views

1. Apply accepted principles and practices to drawing section views of moderately complex mechanical parts and assemblies.

GENERAL COURSE OBJECTIVES (cont.):

Module III - Auxiliary Views

1. Apply accepted principles and practices to drawing auxiliary views of moderately complex mechanical parts and assemblies.

Module IV - Fasteners

1. Apply accepted practices for identify and representing fasteners on technical drawings.

| TOPICAL OUTLINE: | APPROX. HOURS |
|---------------------------------|---------------|
| I. Dimensioning and Tolerancing | 24 |
| II. Section Views | 12 |
| III. Auxiliary Views | 18 |
| IV. Fasteners | <u>12</u> |
| Total | 66 |

REVISED BY: Loc Nguyen
DATE: February 2009