

COURSE OUTLINE

Revision: Loc Nguyen - Date: February 2009

DEPARTMENT: Drafting Technology
CURRICULUM: Drafting
COURSE TITLE: Industrial Blueprint Reading
COURSE NUMBER: TDR 129
TYPE OF COURSE: Vocational Preparatory
COURSE LENGTH: 1 quarter
CREDIT HOURS: 3
LECTURE HOURS: 22
LAB HOURS: 22
CLASS SIZE: 20
PREREQUISITES: None

COURSE DESCRIPTION:

This course is primarily for the machinist. It covers the detail drawing page, tile block, dimensioning, and tollerancing, views of a drawing, drawing notes, and drawing changes.

STUDENT LEARNING OUTCOMES ADDRESSED:

1. Communication - Use communication skills to consult with co-workers consistently.
2. Critical Thinking and Problem Solving - Use problem solving skills to solve machining problems.
3. Technology - Use appropriate technological equipment effectively.

STUDENT LEARNING OUTCOMES ADDRESSED: (cont.)

4. Information Literacy - Access technical manuals and specifications regarding blue prints.

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 COURSE OBJECTIVES:

At the end of the course the student will:

1. Understand engineering drawings layout.
2. Recognize and understand what the title block says.
3. Recognize the different types of lines.
4. Demonstrate drawing revisions.
5. Understand geometric tolerancing.
6. Understand the drawing of general notes.

TOPICAL OUTLINE:

APPROX. HOURS

- | | |
|----------------------------|---|
| I. Dimensioning systems | 4 |
| A. Fractional dimensioning | |
| B. Decimal dimensioning | |
| C. Scale reading | |

TOPICAL OUTLINE (cont.):	APPROX. HOURS
II. Title blocks	4
A. Part number and name	
B. Finish, tolerances and material blocks.	
C. Notes	
D. Change block	
III. Sketching	4
A. Missing view	
B. Isometric	
C. Orthographic	
IV. Dimensional methods	4
A. Chain	
B. Datum	
C. Calculations	
V. Orthographic projection of inclined planes	6
A. Foreshortened	
B. Angular	
C. Included angle	
D. Slots and grooves	
E. Threaded holes	
VI. Reference dimension	5
VII. Casting drawings	4
VIII. Sectional views	5
A. Full and half sections	
B. Revolved	
C. Broken out	
D. rotated	
E. Offset	
IX. Drawing revisions	4
Total	<u>44</u>

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