

COURSE OUTLINE
Loc Nguyen, 2012

DEPARTMENT:	Professional Technical Education
CURRICULUM:	CAD / DESIGN Technology
COURSE TITLE:	Drafting Technology III
COURSE NUMBER:	TDR 125
TYPE OF COURSE:	Technical Preparatory
COURSE LENGTH:	1 quarter
CREDIT HOURS:	4
LECTURE HOURS:	22
LAB HOURS:	44
CLASS SIZE:	20
PREREQUISITES:	TDR 123 Drafting Technology II

COURSE DESCRIPTION:

Advanced principles, techniques and application of engineering graphics including: Advanced Dimensioning & Tolerancing, detail and assembly drawings. Emphasis on standard practices ANSI / ASME or ISO and variation 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 defining geometrical spatial relationships.
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.

STUDENT LEARNING OUTCOMES ADDRESSED: (cont.)

6. Personal Responsibility - Take pride in own work
7. Information Literacy - Access & use information from variety of resources / data

GENERAL COURSE OBJECTIVES:

Upon completion of the course the student will be able to:

1. Describe the nominal size, tolerance, limits, and allowance of two mating parts
2. Identify a clearance fit, interference fit, and transition fit.
3. Describe the basic hole and basic shaft systems.
4. Dimension mating parts using limits dimensions, unilateral and bilateral tolerances.
5. Identify the elements of a detail drawing.
6. Describe the process for revising drawings
7. List the parts of an assembly drawings.
8. Create detail and assembly drawings.

TOPICAL OUTLINE:

	APPROX. HOURS
I. Course Overview	1
II. Understanding Tolerancing	11
III. Using American National Standard Limits & Fits Tables	12
IV. Specifying Tolerances	12
V. Tolerancing Stacking	6
VI. Working Drawings: Details and Assembly Drawings	<u>24</u>
Total	66

Originated or Revised BY: L. NGUYEN
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