

COURSE SYLLABUS

Course Title:	Engineering Graphics	Date submitted:	02/12/08 (08-41)
Department:	Business and Technology		
Curriculum:	Technology Studies		
Course Descriptors: Make certain that the course descriptors are consistent with college and Board of Trustees policies, and the current course numbering system.	Course Code: (eg. ACC 101) MFG*127	Prerequisites:	
	Course Type: X	C- or better in Elementary Algebra Foundations	
	A: Clinical B: Lab D: Distance Learning I: Individual/Independent L: Lecture N: M: Seminar Internship P: Practicum U: Studio X: Combined Lecture/Lab Y: Combined Lecture/ Clinical/Lab Z: Combined Lecture/Studio	Corequisites:	
	Elective Type: G	None	
	E: English FA: Fine Arts HI: History HU: Humanities LA: Liberal Arts FL: Foreign Language M: Math S: Science SS: Social Science G: General	Other Requirements:	
	Credit Hours: 3	None	
	Developmental: (yes/no) No		
	Lecture: 3		
	Clinical: 0		
	Lab: 0		
Studio: 0			
Other: 0			
TOTAL: 3			
Contact Hours:	Other: 0		
Class Maximum: 19			
Semesters Offered: Fa, Sp			
Catalog Course Description:	Provides practical explanations of how to interpret engineering/technical drawings using the latest American National Standards Institute (ANSI) standards. Focus is on standardization and quality standards applied in the engineering and technology trades with regard to technical drawings. Prerequisite: C- or better in Elementary Algebra Foundations.		
Topical Outline: <small>List course content in outline format.</small>	1. Introduction to Print Reading a. Basis for Interpreting Drawings b. Types of Drawings 2. Drawing to Scale a. Types of Scales b. Interpretation of Scaled Objects c. Notation		

	<ol style="list-style-type: none"> 3. Dimensioning <ol style="list-style-type: none"> a. Angles b. Symbols c. Specifications d. Tolerance and Allowances e. Fits and Form Tolerances 4. Interpreting Drawings <ol style="list-style-type: none"> a. Arrangement of Views b. Section Views c. Auxiliary Views d. Assembly Drawings 5. Drawings and Manufacturing Processes <ol style="list-style-type: none"> a. Castings b. Numerical Control c. Welding d. Forging e. Machining f. Sheet Metal Drawings 6. Quality Control and Advanced Tolerancing
<p>Outcomes: Describe measurable skills or knowledge that students should be able to demonstrate as evidence that they have mastered the course content.</p>	<p>Upon successful completion of this course, the student will be able to do the following:</p> <p>COURSE:</p> <ol style="list-style-type: none"> 1. interpret ANSI and SI Metric drafting symbols and standards 2. define common terminology associated with engineering and technical drawings 3. identify manufacturing process and notes and their meanings 4. use scale types and factors to interpret drawing measurements 5. identify the types of drawings used to describe mechanical parts and systems 6. explain the importance of tolerancing and engineering specifications to the quality control process <p>PROGRAM: <i>(Numbering reflects Program Outcomes as they appear in the college catalog)</i></p> <p>Technology Studies Associate Degree:</p> <ol style="list-style-type: none"> 1. Identify and apply the design principles of engineering and technology when solving basic engineering problems. 2. Utilize the tools, materials, techniques, and technical processes of engineering and technology when solving technical problems. 3. Apply the basic concepts of science and mathematics to the study of electricity and electronics, materials, computer-aided design (CAD), manufacturing, and construction. <p>GENERAL EDUCATION: <i>(Numbering reflects General Education Outcomes as they appear in the college catalog)</i></p> <ol style="list-style-type: none"> 1. Communication <ol style="list-style-type: none"> 1.1 Writing: Effectively communicates thoughts and ideas in writing

	<p>1.1.1 Level 1: communicates effectively in writing</p> <p>2. <u>Critical Thinking</u></p> <p>2.1 Selects and evaluates information</p> <p>2.1.1 Level 1: distinguishes between relevant and irrelevant information</p> <p>2.1.2 Level 2: evaluates relevant information for its accuracy and completeness</p> <p>7. <u>Quantitative and Scientific Reasoning</u></p> <p>Quantitative:</p> <p>7.1 Demonstrate knowledge and comprehension of quantitative skills</p> <p>7.1.1. Level 1: recalls domain-specific symbols, vocabulary, definitions, operations, laws, and principles</p>
<p>Evaluation: List how the above outcomes will be assessed.</p>	<p>Assessment will be based on the following criteria:</p> <p>Homework assignments</p> <p>Projects</p> <p>Quizzes and exams</p>
<p>Instructional Resources: List library (e.g. books, journals, on-line resources), technological (e.g. Smartboard, software), and other resources (e.g. equipment, supplies, facilities) required and desired to teach this course.</p>	<p>Required: None</p> <p>Desired: None</p>
<p>Textbook(s)</p>	<p>Refer to current academic year printout.</p>