

COURSE SYLLABUS

Course Title:	Blueprint Reading II	Date submitted:	4/30/2018 (18-27)	
Department:	Advanced Manufacturing 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*125 Course Type: X A: Clinical B: Lab D: Distance Learning I: Individual/Independent L: Lecture N: Internship M: Seminar P: Practicum U: Studio X: Combined Lecture/Lab Y: Combined Lecture/ Clinical/Lab Z: Combined Lecture/Studio Elective Type: G AH: Art History E: English FA: Fine Arts FL: Foreign Language G: General HI: History HU: Humanities LAS: Liberal Arts & Sciences M: Math S: Science SS: Social Science Credit Hours: 3 Developmental: (yes/no) No Lecture: 1.5 Clinical: 0 Contact Hours: Lab: 1.5 Studio 0 Other: 0 TOTAL: 3 Class Maximum: 24 Semesters Offered: Fall	Prerequisites:	Blueprint Reading I (MFG*124) or equivalent assessment test	
	Corequisites:	None		
	Other Requirements:	None		
	Catalog Course Description:	Second course in Blueprint Reading. A further study of simple and complex drawings for machining or assembly purposes. Topics include the application and meaning of geometric characteristics and controls the metric system, weldment, forging and casting drawings and procedures, communication with freehand sketches, blueprint terms and abbreviations.		
	Topical Outline: List course content in outline format.	[The outline should be in title case and use the numbering format below. You may not have subtopics, but if you do, here is the format.] INSTRUCTIONAL UNITS: 1. Applications of geometric dimensioning and tolerancing A. Identify Form Tolerances for individual features B. Use of Datums C. Use of Location and Position Tolerances		

	<ul style="list-style-type: none"> D. Identify and use of Symmetry <ol style="list-style-type: none"> 2. Metrics and Metric Drawings <ul style="list-style-type: none"> A. SI Base Units B. Types of metric drawings C. Use of First angle projection D. Using Metric conversion factors E. Surface texture measurement system F. Metric screw thread notation 3. Castings, forgings and weldments <ul style="list-style-type: none"> A. Identification B. Methods of producing C. Details on engineering drawings D. Machined parts 4. Sketching techniques <ul style="list-style-type: none"> A. Materials used in making freehand drawings B. Making straight and curved lines C. Measuring objects D. Dimensioning rules E. Orthographic sketching F. Isometric sketching 5. Basic blueprint reading <ul style="list-style-type: none"> A. Putting it all together <p>LABORATORIES:</p> <ol style="list-style-type: none"> 1. Applications of geometric dimensioning and tolerancing <ul style="list-style-type: none"> A. Use of Datums B. Use of Location and Position Tolerances C. Identify and use of Symmetry 2. Applications of Metric Drawings <ul style="list-style-type: none"> A. Use of First angle projection B. Using Metric conversion factors C. Surface texture measurement system D. Metric screw thread notation 3. Reading casting, forging and weldment drawings <ul style="list-style-type: none"> A. Identification and use of each type of part B. Methods of producing these parts C. Details on engineering drawings D. Processing of machined parts 4. Sketching techniques <ul style="list-style-type: none"> A. Using materials to make freehand drawings B. Making straight and curved lines to form sketches C. Measuring objects D. Applying dimensioning rules E. Making orthographic sketches F. Making isometric sketches 5. Basic blueprint reading <ul style="list-style-type: none"> A. Combining all skills to interpret drawings
Outcomes:	Upon successful completion of this course, the student will be able to do the

<p>Describe measurable skills or knowledge that students should be able to demonstrate as evidence that they have mastered the course content.</p>	<p>following:</p> <p>COURSE:</p> <ol style="list-style-type: none"> 1. recognize and read the application and meaning of geometric characteristics and controls 2. demonstrate the ability to understand and use the metric system 3. read and understand assembly drawings 4. recognize weldment, forging and casting drawings and procedures 5. communicate with freehand sketches 6. read simple and complex drawings for machining or assembly purposes 7. recognize and use blueprint terms and abbreviations <p>PROGRAM: <i>(Numbering reflects Program Outcomes as they appear in the college catalog)</i></p> <p><u>Electronics Technology Certificate and A.S. Degree</u></p> <ol style="list-style-type: none"> 1. demonstrate an understanding of Shop Safety 2. demonstrate an understanding the theory of electrical structure, voltage, current, resistance, and electrical circuit and their measurement 3. demonstrate an understanding of the basic laws of arithmetic 4. demonstrate an understanding of several number systems and codes that are the foundation of digital theory and digital applications 5. make comparisons with personal computers; as well as, develop an understanding of its origin and growth since conception 6. demonstrate an understanding of the fundamentals of Automated Manufacturing systems <p>GENERAL EDUCATION: <i>(Numbering reflects General Education Outcomes as they appear in the college catalog)</i></p> <p>No General Education outcomes.</p>
<p>Evaluation: List how the above outcomes will be assessed.</p>	<p>Assessment will be based on the following criteria:</p> <p>quizzes exams laboratory Projects</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: No special facilities are required.</p> <p>Desired: None</p>

<p>Textbook(s)</p>	<ol style="list-style-type: none">1. <u>Print Reading for Industry</u>; Walter C. Brown and Ryan K. Brown; Goodheart and Wilcox, latest edition2. <u>Geometric Dimensioning and Tolerancing</u>; David A Madsen, Goodheart -Wilcox Company, latest edition
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