

# COURSE SYLLABUS

<b>Course Title:</b>	CAD Mechanical AutoCAD	<b>Date submitted:</b>	Feb. 2008 (08-32)	
<b>Department:</b>	Business and Technology			
<b>Curriculum:</b>	Technology Studies			
<b>Course Descriptors:</b> Make certain that the course descriptors are consistent with college and Board of Trustees policies, and the current course numbering system.	<b>Course Code:</b> (eg. ACC 101)	CAD*133		
	<b>Course Type:</b>	X		
	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			
	<b>Elective Type:</b>	G		
	E: English FA: Fine Arts HI: History HU: Humanities LAS: Liberal Arts & Sciences FL: Foreign Language M: Math S: Science SS: Social Science G: General			
	<b>Credit Hours:</b>	3		
	<b>Developmental:</b> (yes/no)	No		
	<b>Contact Hours:</b>	Lecture:	3	
		Clinical:	0	
		Lab:	1	
Studio		0		
Other:		0		
	TOTAL:	3		
<b>Class Maximum:</b>	19			
<b>Semesters Offered:</b>	Fa/Sp			
<b>Prerequisites:</b>				
C- or better in Prealgebra & Elementary Algebra (MAT*085) or Introductory Algebra (MAT*094) or Elementary Algebra Foundations (MAT*095) <b>OR</b> placement into credit level mathematics. or placement into Intermediate Algebra (MAT*137) or Elementary Algebra/Intermediate Algebra Combined (MAT*139)				
<b>Corequisites:</b>				
None				
<b>Other Requirements:</b>				
None				
<b>Catalog Course Description:</b>	Introduces students to the technical drawing field. Students will use Computer-Aided Drafting (CAD) for geometric construction; 3D modeling; orthographic projection; sectional views and auxiliary views; and dimensioning and tolerancing. Traditional equipment is used to reinforce pictorial sketching and drawing techniques.			
<b>Topical Outline:</b> List course content in outline format.	<ol style="list-style-type: none"> <li>1. Introduction and Orientation to Technical Drafting</li> <li>2. Introduction to Computer Aided Drafting and Design</li> <li>3. Instrument Drawing Techniques</li> <li>4. Drawing Management/File Types</li> <li>5. Design Processes and Methods</li> <li>6. Sketching</li> </ol>			

	<ol style="list-style-type: none"> <li>7. Orthographic Projection/Multiview Drawings</li> <li>8. Pictorials</li> <li>9. Geometric Constructions</li> <li>10. Dimensioning and Tolerancing</li> <li>11. Manufacturing Processes</li> <li>12. Three-dimensional Modeling</li> <li>13. Production Drawings</li> <li>14. Section Views</li> <li>15. Auxiliary Views</li> </ol>
<p><b>Outcomes:</b> 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><b>COURSE:</b></p> <ol style="list-style-type: none"> <li>1. create both two- and three-dimensional designs/drawings using CAD software</li> <li>2. cite and identify technical drafting practices, procedures, and processes according to current ANSI/ISO standards</li> <li>3. demonstrate the use of traditional drafting instruments, media and equipment used in industry</li> <li>4. sketch and model multiview drawings</li> <li>5. explain the need, relevancy and application of CAD to the various engineering disciplines</li> </ol> <p><b>PROGRAM:</b> <i>(Numbering reflects Program Outcomes as they appear in the college catalog)</i></p> <p><b>TECHNOLOGY STUDIES ASSOCIATE DEGREE:</b></p> <ol style="list-style-type: none"> <li>3. apply the basic concepts of science and mathematics to the study of electricity and electronics, materials, computer-aided design (CAD), manufacturing, and construction</li> <li>4. use appropriate computer software when creating technical drawings and presentations</li> <li>5. create two-dimensional technical drawings, solid models, and surface models, according to current engineering standards</li> </ol> <p><b>GENERAL EDUCATION:</b> <i>(Numbering reflects General Education Outcomes as they appear in the college catalog)</i></p>
<p><b>Evaluation:</b> List how the above outcomes will be assessed.</p>	<p>Assessment will be based on the following criteria:</p> <p>Drawing assignments utilizing AutoCAD</p> <p>Group design projects</p> <p>Quizzes and tests</p>
<p><b>Instructional Resources:</b> 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: Computer Lab with AutoCAD</p> <p>Desired:</p>
<p><b>Textbook(s)</b></p>	<p>Refer to current year academic printout.</p>