

# COURSE SYLLABUS

<b>Course Title:</b>	Introduction to Computer Aided Drafting	<b>Date submitted:</b>	March, 2015 (AAC: 15-31)	
<b>Department:</b>	Business/Technology			
<b>Curriculum:</b>	Manufacturing			
<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*110		
	<b>Course Type:</b>	D/L		
	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			
	<b>Elective Type:</b>	G		
	AH: Art History E: English FA: Fine Arts G: General HI: History HU: Humanities LAS: Liberal Arts & Sciences FL: Foreign Language M: Math S: Science SS: Social Science			
	<b>Credit Hours:</b>	3		
	<b>Developmental:</b> (yes/no)	No		
	<b>Contact Hours:</b>	Lecture:	3	
		Clinical:	0	
		Lab:	0	
	Studio:	0		
	Other:	0		
	TOTAL:	3		
	<b>Class Maximum:</b>	24		
	<b>Semesters Offered:</b>	Sp		
<b>Prerequisites:</b>	None			
<b>Corequisites:</b>	None			
<b>Other Requirements:</b>				
<b>Ability Based Education (ABE) Statement</b>	At Tunxis Community College students are assessed on the knowledge and skills they have learned. The faculty identified the General Education Abilities critical to students' success in their professional and personal lives. In every class, students are assessed on course abilities, sometimes program abilities, and, in most classes, at least one General Education Ability. Students will receive an evaluation of the degree to which they have demonstrated or not demonstrated that General Education Ability.			
<b>Catalog Course Description:</b>	An introduction to the techniques of generating graphic images with computers, using AutoCAD. Topics include: overview of CAD technology, computer technology, hardware descriptions and requirements, file manipulation and management, two-dimensional geometric construction, symbol library creation, dimensioning, scaling, sectioning, plotting, detail and assembly drawing including tolerance studies.			
<b>Topical Outline:</b> List course content in outline format.	1. Overview A. Drawing Editor B. Input Methods C. Using Dialogue Boxes D. Beginning a New Drawing			

- E. Opening an Existing Drawing
- F. Saving and Exiting AutoCAD
- 2. Starting AutoCAD
  - A. Coordinate Systems
  - B. Drawing Settings
    - 1. Units
    - 2. Limits
  - C. Drawing Commands
    - 1. Lines
    - 2. Circles
  - D. Function Keys
  - E. Object Snaps
- 3. Editing Drawings
  - A. Edit Commands
    - 1. Erase
    - 2. Move
    - 3. Copy
  - B. Settings
    - 1. Line Types
    - 2. Line Type Scale
  - C. Display Commands
- 4. Dimensioning
  - A. Basic Dimensioning Commands
    - 1. Horizontal
    - 2. Vertical
    - 3. Angular
    - 4. Aligned
    - 5. Radius and Diameter
  - B. Dimensioning Variables
  - C. Object Snaps
  - D. Layer Control
- 5. Drawing and Edit Commands
  - A. Arc, Polygon, and Ellipse
  - B. Fillet, Chamfer, Break, Mirror
  - C. Dtext and Text Commands
  - D. Circular Dimensioning
- 6. Edit Commands
  - A. Edit Commands (Extend, Trim, Change, CHPROP, DDMODIFY, Offset, Array)
  - B. Layer Control

	<ul style="list-style-type: none"> <li>7. Drawing Commands                         <ul style="list-style-type: none"> <li>A. Plines</li> <li>B. Pedit</li> <li>C. Hatching and Boundaries</li> </ul> </li> <li>8. Blocks and Attributes                         <ul style="list-style-type: none"> <li>A. Creating Blocks</li> <li>B. Inserting Blocks</li> <li>C. Wblock Commands</li> </ul> </li> <li>9. Attributes                         <ul style="list-style-type: none"> <li>A. Attribute Definition</li> <li>B. Creating Attributes</li> <li>C. Attributes and Blocks</li> <li>D. Editing Attributes</li> </ul> </li> <li>10. External References                         <ul style="list-style-type: none"> <li>A. XREF Command</li> <li>B. Management of External References</li> </ul> </li> <li>11. Three Dimensional CAD                         <ul style="list-style-type: none"> <li>A. Introduction to Three-Dimensional Concept</li> <li>B. Isometric Drawings</li> <li>C. Isometric Dimensioning</li> </ul> </li> </ul>
<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><b>Upon successful completion of this course, the student will be able to do the following:</b></p> <ul style="list-style-type: none"> <li>1. identify applications for Computer-Aided Drafting</li> <li>2. apply Two and Three-Dimensional drawing techniques to CAD drawings</li> <li>3. demonstrate editing techniques on CAD drawings</li> <li>4. demonstrate basic dimensioning based on ANSI standards</li> </ul> <p><b>PROGRAM:</b> <i>(Numbering reflects Program Outcomes as they appear in the college catalog)</i></p> <ul style="list-style-type: none"> <li>3. apply the basic concepts of science and mathematics to the study of electricity and electronics, materials, computeraided design (CAD), manufacturing, and construction</li> <li>4. utilize 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> </ul> <p><b>GENERAL EDUCATION:</b> <i>(Numbering reflects General Education Outcomes as they appear in the college catalog)</i> None</p>
<p><b>Evaluation:</b> List how the above outcomes will be assessed.</p>	<p><b>Assessment will be based on the following criteria:</b></p> <ul style="list-style-type: none"> <li>Assignments</li> <li>Projects</li> <li>Quizzes, Exams</li> </ul>

<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.	<b>Required:</b> CAD Lab, CAD Software  <b>Desired:</b>
<b>Textbook(s)</b>	Check with department chair for list of approved texts.