THREE RIVERS COMMUNITY COLLEGE
COURSE OUTLINE

Course Number/Title: CAD K106 Computer Aided Drafting

Lecture 1 hrs Laboratory 0 hrs Credit 1 hrs Contact 1 hrs

Course Description: This class is taken in conjunction with Computer Aided Drafting Lab and is intended to support lab practice by discussing the application of drafting standards on the CAD system.

Method: Lectures and demonstrations are used.

Text: AutoCAD 2007, Tickoo

Prerequisites: None Co-Requisites: CAD K107

COURSE TOPICS/CONTENT

		HOURS
1.	Software Overview	.5
2.	Coordinate Systems	.5
3.	Systems of Units	.5
4.	Entities and Their Options	.5
5.	UNDO Options	.5
6.	ANSI Standards	.5
7.	Prototype Drawings	1.5
8.	Editing Command Options	1.5
9.	Drawing Aids Options	.5
10.	Display Command Options	1.0
11.	Text Options	.5
12.	Drawing Information	.5
13.	Windows Operating System	.5
14.	Dimensioning Techniques	.5
15.	Dimension Variables	.5
16.	Dimension Styles	.5
17.	Multi-view Drawings	1.5
18.	Sectioning	.5
19.	Blocks	.5
20.	Attributes	.5
21.	Reference Files	.5
22.	Model Space/Paper Space	.5
23.	User Coordinate System	.5
	TOTAL HOURS:	15

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Program Coordinator: *Robert Lantz*

Department Chairperson: *Tony Benoit*

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Measurable Objectives

The student will be able to:

1. Discuss the role of computer software in the design process.
2. Specify coordinate locations using rectangular, polar, cylindrical, and spherical systems.
3. Establish drawing environments for Mechanical, Architectural, and Civil applications.
4. Describe entity options for the LINE, ARC, CIRCLE, POINT, POLYGON, PLINE, ELLIPSE, SOLID, and DONUT commands.
5. Describe the options of the UNDO command and their role in creating prototypes.
6. Cite the ANSI standards for formats, line types, line weights, and character sizes.
7. Discuss the integration of layering, colors, line types, scales, and formats in setting up prototype drawings.
8. Describe the variety of selection options and interpret the edit command options.
9. Explain SNAP rotation, aspect, and style; understand the OSNAP override settings.
10. Distinguish the advantages of the PAN, VIEW, and ZOOM options.
11. Explain the text justification options, the use of special characters, and the implementation of test styles.
12. Interpret drawing information extracted with the TIME and STATUS commands.
13. Effectively organize disks and manage files in the DOS environment.
14. Put into practice the established standards for dimensioning in both inch and metric units.
15. Assign values to dimension variables appropriately.
16. Incorporate dimension styles, where applicable.
17. Conceptualize and sketch the orthographic views of a solid.
18. Sketch full, half, offset, etc. sections of a solid.
19. Explain the value of using blocks.
20. Correctly assign modes, build attributes, and extract attribute information from a drawing.
21. Decide when the use of XREFs is more suitable than blocks.
22. Explain the MVIEW options and the reasons for using Paper Space.
23. Interpret the UCS options.