

SYLLABUS

CAD K106 COMPUTER AIDED DRAFTING

**THREE RIVERS COMMUNITY COLLEGE
NORWICH, CONNECTICUT 06360**

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COURSE DESCRIPTION

This course exposes the student to the current means of generating graphic images with computers. Topics covered include: CAD overview, computer terminology, hardware descriptions and requirements, file manipulations and management, 2D and 3D geometric construction, symbol library creation, dimensioning, scaling, sectioning, plotting, detail, and assembly drawings.

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 of 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 text 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.

METHOD OF EVALUATION

1. Student performance on quizzes containing items that are multiple choice, true and false, short answer, and completion.
2. Student performance on examinations containing items that are multiple choice, true and false, short answer, and completion.
3. Quizzes and exams will cover material from lectures and the textbook. Unexcused absences from quizzes and exams will result in a score of 0 for that exam. Excused absences must be requested **in advance** of the in-class exam.

QUIZZES AND EXAMS

Quizzes and exams will be in short answer, true and false, or multiple-choice form, and in lab form requiring use of the computer. Quizzes and exams will cover material from lectures and the textbook. Unexcused absences from quizzes and exams will result in a score of 0 for that exam. Excused absences must be requested **in advance** of the in-class exam.

MAKEUP POLICY

Students are required to make up missed quizzes, lab assignments, and examinations resulting from excused absences. Arrangements are to be made up on an individual basis with the instructor.

ATTENDANCE

Students are expected to attend class regularly. No absences of any nature will be construed as relieving you from the responsibility for the completion of all work assigned by the instructor. Absences are discouraged because interaction with the instructor and classmates is an integral part of learning computer software applications. Unexcused absences from exams and quizzes will result in a score of 0 for that test.

CELL PHONES AND PAGERS POLICY

Students are notified that cellular phones and beepers are allowed in class or in the Learning Resource Center **only if they are turned off or turned to a silent mode**. Under no circumstances are phones to be answered in class. When there are extenuating circumstances that require that a student be available by phone or beeper, the student should speak to the instructor prior to class, so that together they can arrive at an agreement

COLLEGE WITHDRAWAL POLICY

Students may withdraw, in writing at the Registrar's Office, for any reason until the end of the 10th week of classes. From the 11th week through the end of the 13th week, a student may withdraw with the signature of the instructor or advisor.

DISABILITIES STATEMENT

If you are a student with a disability and believe you will need accommodations for this class, it is your responsibility to contact the Disabilities Counseling Services at 383-5240. To avoid any delay in the receipt of accommodations, you should contact the counselor as soon as possible. Please note that accommodations based upon disability cannot be provided until the instructor has received an accommodation letter from the Disabilities Counselor.

REQUIRED TEXTBOOK

Shumaker, Terence M. and Madsen, David A. *AutoCAD and Its Applications Comprehensive 2007*. Illinois: The Goodheart-Wilcox Company, Inc., 2007.

COURSE EVALUATION

Quizzes and examinations will be given as outlined above. Quizzes will make up 30 percent of the final grade and examinations will make up 70 percent of the final grade.

The following table lists the academic grades used and their corresponding quality points.

GRADES	DEFINITION	EQUIVALENT	QUALITY POINTS
A	Excellent	94-100	4.0
A-		90-93	3.7
B+		87-89	3.3
B	Good	83-86	3.0
B-		80-82	2.7
C+		77-79	2.3
C	Satisfactory	73-76	2.0
C-		70-72	1.7
D+		67-69	1.3
D	Poor	63-66	1.0
F	Unsatisfactory		0.0

A student may request an irrevocable Audit status from the Registrar within the Add-Drop Period. Such status may be granted with written approval of the instructor. Audit status is considered a non-academic grade (No grade points).

INSTRUCTOR CANCELLATION OF CLASSES

There may be instances when it will be necessary for the instructor to independently cancel classes such as for illness or personal inability to travel safely to the college. In these instances the instructor will attempt to notify students at least two hours in advance that classes will not be held. Notifications will be made by E-mail to the e-mail address provided by the student.

ACADEMIC INTEGRITY

Academic integrity is essential to a useful education. Failure to act with academic integrity severely limits a person's ability to succeed in the classroom and beyond. Furthermore, academic dishonesty erodes the legitimacy of every degree awarded by the college. In this class and in the course of your academic career, present only your own best work; clearly document the sources of the material you use from others; and act at all times with honor.

COURSE OUTLINE			
<u>CLASS</u>	<u>DATE</u>	<u>OBJECTIVES</u>	<u>TEXT READING</u>
1	8/30/2006	Commands and Menus Working with Drawings Introduction to Drawing	Chapter 1 Chapter 2 Chapter 3
2	9/6/2006	Introduction to Printing Drawing Basic Shapes	Chapter 4 Chapter 5
3	9/13/2006	Object Snap Inquiry Commands	Chapter 6 Chapter 16
4	9/20/2006	Basic Editing Commands Automatic Editing	Chapter 12 Chapter 13
5	9/27/2006	Using the Geometry Calculator Placing Text on Drawings Working with Tables Drawing Display Options	Chapter 7 Chapter 8 Chapter 9 Chapter 10
6	10/4/2006	Basic Dimensioning Practices Editing Dimensions	Chapter 17 Chapter 18
7	10/11/2006	Dimensioning with Tolerances Geometric Dimensioning and Tolerancing	Chapter 19 Chapter 20
8	10/18/2006	MIDTERM EXAM	
9	10/25/2006	Layouts, Plotting, and Printing Introduction to Polylines Drawing and Editing Polylines Drawing Section Views	Chapter 11 Chapter 14 Chapter 15 Chapter 21
10	11/1/2006	Creating Symbols for Multiple Use Dynamic Blocks	Chapter 22 Chapter 23
11	11/8/2006	Assigning Attributes External References Sheet Sets	Chapter 24 Chapter 25 Chapter 26
12	11/15/2006	Isometric Drawing User Coordinate Systems Three Dimensional Drawing	Chapter 27 Chapter Chapter 28
13	11/29/2006	Understanding User Coordinate Systems Using Model Space Viewports	Chapter 32 Chapter 33
14	12/6/2006	External Commands, Script Files	Chapter 28
15	12/13/2006	FINAL EXAM	

No class on 11/22/06