

# **SYLLABUS**

**CAD K106 COMPUTER AIDED DRAFTING**

**CRN 30050 SECTION T2**

**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 13th week of classes.

## DISABILITIES STATEMENT

If you have a question regarding a disability that may affect your progress in this course, please contact one of the college's Disability Service Providers as soon as possible. Chris Scarborough (892-5751) generally works with students who have learning disabilities or attention deficit disorder. Kathleen Gray (885-2328) generally works with students who have physical, visual, hearing, medical, mobility, and psychiatric disabilities. Matt Liscum (383-5240) also works with students who have disabilities.

## REQUIRED TEXTBOOK

Shumaker, Terence M. and Madsen, David A. *AutoCAD and Its Applications Basic 2010*. Illinois: The Goodheart-Wilcox Company, Inc., 2009.

## 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+	Good	87-89	3.3
B		83-86	3.0
B-		80-82	2.7
C+	Satisfactory	77-79	2.3
C		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.

*If a class is cancelled for a reason other than a full college closing, students will be notified by email or by phone if a student does not have internet access to email. It is the student's responsibility to check email regularly.*

<b>COURSE OUTLINE</b>			
<b><u>CLASS</u></b>	<b><u>DATE</u></b>	<b><u>OBJECTIVES</u></b>	<b><u>TEXT READING</u></b>
1	9/1/10	Introduction to AutoCAD Drawings and Templates Introduction to Drawing & Editing	Chapter 1 Chapter 2 Chapter 3
2	9/8/10	Basic Object Tools Line Standards, Layers, and Basic Plotting	Chapter 4 Chapter 5
3	9/15/10	Object Snaps and Autotrack Construction Tools Obtaining Drawing Information	Chapter 7 Chapter 8 Chapter 16
4	9/22/10	Basic Object Editing Tools Grips, Properties, and Quick Select Polyline and Spline Editing Tools	Chapter 12, 14 Chapter 15 Chapter 13
5	9/29/10	Text Styles and Multiline Text Tables View Tools	Chapter 9, 10 Chapter 11 Chapter 6
6	10/6/10	Dimension Standards and Styles Linear and Angular Dimensioning Dimensioning Features & Alternate Practices	Chapter 17 Chapter 18 Chapter 19
7	10/13/10	Dimensioning with Tolerances Editing Dimensions	Chapter 20 Chapter 21
8	10/20/10	<b>MIDTERM EXAM</b>	
9	10/27/10	Layout Setup Section Views and graphic Patterns	Chapter 29 Chapter 23
10	11/3/10	Standard Blocks External References Drawings	Chapter 25 Chapter 32
11	11/10/10	Block Attributes Introduction to Dynamic Blocks	Chapter 26 Chapter 27, 28
12	11/17/10	Basic Pictorial Drawings Introduction to Three Dimensional Drawing	Chapter 24 Lecture
13	11/24/10	Annotative Objects & Multiview Drawings Plotting Layouts Sheet Sets	Chapter 31 Chapter 30 Chapter 33
14	12/1/10	Script Files, Slide Shows, Parametric Drafting	Chapter 22, Lecture
15	12/8/10	<b>FINAL EXAM</b>	

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