

# **SYLLABUS**

## **CAD K106 COMPUTER AIDED DRAFTING**

**CRN 30914 SECTION T4**

**MONDAYS-WEDNESDAYS 8:00-8:30 AM      8/26/11 – 12/20/11**  
**ROOM E116**

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

**CAROL P. MAKARA, INSTRUCTOR**  
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**FALL 2011**

## **COURSE DESCRIPTION**

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

## **LEARNING OUTCOMES AND OBJECTIVES**

*The student will be able to*

1. Define and discuss computer-aided design and drafting.
2. Specify coordinate locations using absolute, relative rectangular, and relative polar systems.
3. Explain how to establish drawing workspace environments.
4. Identify the commands and their options for drawing basic objects: line, circle, arc, ellipse, polyline, regular polygon, rectangle, and donut.
5. Describe the commands and their options for editing drawing entities: ERASE, UNDO, FILLET, CHAMFER, TRIM, EXTEND, STRETCH, SCALE, MOVE, COPY, ROTATE, MIRROR.
6. Cite the ANSI standards for formats, line types, line weights, and character sizes.
7. Discuss the integration of layers, 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 the use of drawing aids including object snap, display options, and UCS options.
10. Explain text justification options, the use of special characters, and the implementation of text styles.
11. Interpret drawing information extracted with various commands.
12. Explain how to effectively organize drawings and manage files in the Windows environment.
13. Describe how to put into practice the established standards for dimensioning in both inch and metric units.
14. Explain how to assign values to dimension variables and incorporate a variety of dimension styles.
15. Conceptualize and sketch the orthographic views of an object.
16. Describe the value of using blocks.
17. Describe how to assign modes, build attributes, and extract attribute information from a drawing.
18. Describe plotting layouts and floating viewports in paper space.

## **REQUIRED TEXTBOOK AND MATERIALS**

Textbook: Shumaker, Terence M., Madsen, David A. and Madsen, David P. *AutoCAD and Its Applications Basic 2012*. Illinois: Goodheart-Willcox Company, Inc., 2012. Storage Media: Flash Drive.

## **METHODS OF EVALUATION**

Quizzes and Exams: Quizzes and exams will be closed book/notes and will cover assigned readings and material discussed in class. Unexcused absences from quizzes and exams will result in a score of 0 for that quiz or exam. Excused absences must be requested in advance of the quiz or exam. 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.

Homework and Projects: Homework and project assignments will be announced in class. Homework assignments are due on the next scheduled class date and projects are due on the project's designated due date. Homework and project assignments not submitted by the due date will result in a score of 0.

## **GRADING, ATTENDANCE, AND CLASSROOM POLICIES**

### **COURSE GRADE**

Homework, Quizzes, Examinations, and Projects will be given as discussed above. Homework, Quizzes, and Projects 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.

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

A student may request an irrevocable Audit status from the Registrar within the Add-Drop Period. Audit status is considered a non-academic grade.

### **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. Class instruction provides an opportunity for you to observe, comprehend, work on in-class assignments, ask questions, and participate in discussions.

### **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 or verbally at the Registrar's Office, for any reason until the 14<sup>th</sup> week of classes.

## **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. It is the student's responsibility to check email regularly.

## **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.

## **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 (860-892-5751/Room A-119) generally works with students who have Learning Disabilities, Attention Deficit Disorder, or Asperger's Syndrome (Chris's position is part-time). Kathleen Gray (860-885-2328/Room A-119) generally works with students who have physical, visual, hearing, medical, mobility, or psychiatric disabilities.

*Please note that an instructor cannot provide disability accommodations until a student provides the necessary paperwork from the college's Office of Disability Services to the instructor. Also, accommodations take effect when the instructor receives the paperwork from a student- accommodations cannot be provided retroactively.*

## COURSE CALENDAR

CLASS	DATES	TOPICS	TEXT READING
1	8/29/11 8/31/11	Introduction to AutoCAD Drawings and Templates	Chapter 1 Chapter 2
2	No Monday Class 9/07/11	Introduction to Drawing & Editing	Chapter 3
3	9/12/11 9/14/11	Basic Object Tools	Chapter 4
4	9/19/11 9/21/11	Line Standards and Layers View Tools and Basic Plotting	Chapter 5 Chapter 6
5	9/26/11 9/28/11	Object Snaps Obtaining Drawing Information	Chapter 7 Chapter 15
6	10/03/11 10/05/11	Basic Object Editing Tools Arranging and Patterning Objects More Editing Tools	Chapter 11 Chapter 12 Chapter 13, 14
7	10/10/11 10/12/11	Text Styles and Multiline Text More Text Tools Tables	Chapter 9 Chapter 10 Chapter 21
8	10/17/11 10/19/11	<b>MIDTERM EXAM</b>	
9	10/24/11 10/26/11	Linear and Angular Dimensioning Dimensioning Features	Chapter 17 Chapter 18
10	10/31/11 11/2/11	Dimensioning Standards and Styles Dimensioning with Tolerances Editing Dimensions	Chapter 16 Chapter 19 Chapter 20
11	11/07/11 11/09/11	Section Views and Graphic Patterns	Chapter 23
12	11/14/11 11/16/11	Standard Blocks Introduction to Dynamic Blocks	Chapter 24 Chapter 26
13	11/21/11 No Wednesday Class	Block Attributes	Chapter 25
14	11/28/11 11/30/11	Multiview Drawings Plotting Layouts Parametric Drawing	Chapter 8 Chapter 28, 29 Chapter 22
15	12/05/11 12/07/11	External References Sheet Sets	Chapter 31 Chapter 32
16	12/12/11 12/14/11	<b>FINAL EXAM</b>	

*DISCLAIMER: THE INSTRUCTOR RESERVES THE RIGHT TO REVISE INFORMATION CONTAINED IN THIS SYLLABUS. CHANGES, IF ANY, WILL BE ANNOUNCED IN CLASS.*