### APPLIED TECHNOLOGY 46 Introduction to Computer-Aided Drafting

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#### **COURSE DESCRIPTION**

Introduction to the AutoCAD Computer-Aided Drafting Program. The students will learn the basics of the program through lecture and hands-on experience using the personal computer and related equipment in the computer drafting lab. Several different types of technical drawings will be covered during lecture/demonstration, and produced by the student utilizing the AutoCAD Program.

#### **Student Learning Outcomes:**

Upon successful completion of this course, students will be able to:

- 1. Produce CAD projects that utilize geometric construction/editing, orthographic projection, dimensioning and text annotations.
- 2. Produce prints/plots from student prepared CAD files.

# AREAS TO BE COVERED IN LECTURE/DEMONSTRATION

- 1. Introduction to the computer drafting lab
- 2. Uses and structure of AutoCAD and its equipment
- 3. Review of the different types of technical drawings to be produced and proper working drawing formats
- 4. Drawing environment setup
- 5. Geometric constructions
- 6. Multi-view projections
- 7. Drawing annotation
- 8. Plotting

## **TEXT MATERIALS**

**Note:** All necessary materials will be handed out in class. There is no required text book for this course.

## ASSIGNMENTS

A total of 12 assignments (20 pts. each) will be required. All assignments will be evaluated by viewing your drawing files at a computer. In addition, seven drawings will be plotted on paper and handed in. Plots are due on the scheduled dates. Your hard-copies will be evaluated with a possible two points being earned for each correct plot. Late work will be penalized 10% of its original point total.

# **EVALUATION**

Two quizzes (30 pts. each) will be administered. See the course schedule for quiz dates. There is no make-up of quizzes.

A final exam (60 pts.) will be given at the end of the course. A final course grade, based on total points will be given on the following scale:

90% - 100%	Α
80% - 89%	В
70% - 79%	С
60% - 69%	D
Below 60%	F

Attendance at all class meetings is extremely important. Each absence will result in **5 points being deducted** from your overall point total.

### APPLIED TECHNOLOGY 46 Assignment Schedule

ASSIGNMENTS	<b>DUE DATES</b>
(1) Drawing Lines	10/28
(2) Title Block/Diagram	10/30
(3) Geometric Construction #1	11/6
(4) Geometric Construction #2	11/13
QUIZ #1 (Assignments 1, 2, 3, 4)	
(5) Orthographic Projection #1	11/20
(6) Orthographic Projection #2	11/25
(7) Isometric Drawing	11/27
(8) Floor Plan	12/4
(9) Dimensioning #1	12/9
QUIZ #2 (Assignments 5, 6, 7, 8, 9)	
(10) Dimensioning #2	12/9
(11) Blocks	12/11
(12) Intro to 3D	12/18
FINAL EXAM (Comprehensive)	
	<ol> <li>Drawing Lines</li> <li>Title Block/Diagram</li> <li>Geometric Construction #1</li> <li>Geometric Construction #2</li> <li>QUIZ #1 (Assignments 1, 2, 3, 4)</li> <li>Orthographic Projection #1</li> <li>Orthographic Projection #2</li> <li>Isometric Drawing</li> <li>Floor Plan</li> <li>Dimensioning #1</li> <li>QUIZ #2 (Assignments 5, 6, 7, 8, 9)</li> <li>Dimensioning #2</li> <li>Blocks</li> <li>Intro to 3D</li> </ol>

\* Quizzes and Final Exam will include a written section (based on lectures) and a drawing reflecting recent class assignments.