



## DRFT 1300

**Division:** Career and Technical Education

**Department:** Drafting Technology

**Course:** DRFT 1300

**Title:** Basic AutoCAD

**Catalog Description:**

This course teaches drafting using the AutoCAD software system. It includes enough exposure to the Windows operating system to create and manage files, create and read directories, and operate the AutoCAD software as it applies to drawing files. It also includes using AutoCAD commands to create drawings with various lines and shapes, using drawing display options, placing text on drawings, printing and plotting, using the editing commands, using multiple layers, and using basic dimensioning.

**General Education Requirements:** N/A

**Semesters Offered:** TBA

**Credit/Time Requirement:** Credit: 3; Lecture: 2; Lab: 3

**Clock/Hour Requirements:** 75

**Offered for Non-Credit:** No

**Prerequisites:** None

**Corequisites:** None

**Justification:**

This course is approved by the program advisory committee and corresponds to UVSC course DT 1040, USU course ME EN 1000, SUU course DT 164, and Dixie College course DRAF 1040.

**Student Learning Outcomes:**

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

- understand and apply the Windows system to create, manage, and work with drawing files and directories
- use the AutoCAD system to set up drawings, save drawings, and work with basic AutoCAD commands to draw lines and basic shapes
- edit drawings and make changes in drawings and layouts
- know the AutoCAD commands for geometric construction and apply drawing options
- place text and notes on drawings
- understand how to obtain hard copy of drawings by using a plotter and printer
- know and apply the application of polylines in drawings
- use various layers and associated commands in working with large drawings
- know how to place basic dimensions on drawings.

**Content:**

Course objectives will be achieved by providing students with instructional and hands-on experiences in the following areas:

- using Windows with the AutoCAD system to create, store, and manage files and directories
- introduction to computer-aided drafting, starting AutoCAD, and setting up drawing files
- introduction to drawings and drawing aids
- drawing lines, polylines, multiple lines, and shapes
- editing drawings by erasing and changing lines and shapes
- using geometric construction in creating drawings
- placing text and notes on drawings
- printing and plotting drawings
- creating multiple objects and obtaining information about drawings
- multiview drawings and layers
- basic dimensioning practices.

### **General Education Outcomes:**

2) Write clearly, informatively, and persuasively.

Students are required to complete descriptive term-sheets which provide information about the vocabulary and terminology used in this specific area. The descriptions are reviewed, graded, and returned to students for improvement.

6) Apply computational skills to a variety of contexts.

The field of drafting requires the combination of basic math, geometry, and algebra skills. Students will utilize these skills when producing drawings, cost estimates, and material lists.

8) Apply ethical reasoning to a variety of contexts.

The client-designer relationship requires an understanding of ethical behaviors in design and consultation. Draftsmen often work in teams where the individuals are each required to fulfill responsibilities under the direction of a team leader. This experience is modeled throughout the program.

### **Key Performance Indicators:**

#### **In class:**

- Students will demonstrate mastery of course competencies by completing assignments/projects, tests, and quizzes. Assignments/projects are worth 75%, tests are worth 15%, and quizzes are worth 10% of the final grade.

#### **Following class:**

- The knowledge and skills acquired in this course will be demonstrated in subsequent courses.

### **Representative Text and/or Supplies:**

- *AutoCAD and its Applications Basic*, current edition, Goodheart-Wilcox Company, Inc.

**Optimum Class Size:** 12

**Maximum Class Size:**

**DRFT 1300**



**Signatures:**

I hereby submit this course syllabus:

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Craig Conder, ,

I hereby find this course consistent with the goals and resources of the Drafting Technology Department:

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Craig Conder, , , Chair

I hereby find this course consistent with the goals and resources of the Career and Technical Education Division:

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Michael P. Medley, MBA, Assistant Professor, Dean

I have discussed the need for library resources related to this class with the person submitting the syllabus:

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Lynn Anderson, MLIS, Technical Services Librarian (Main Campus)

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Michelle Olsen, MLS, Campus Librarian (Richfield Campus)