

Drafting for Specific Occupations (DFTG 1313)



Credit: 3 semester credit hours (2 hours lecture, 4 hours lab)

Prerequisite/Co-requisite: None

Course Description

Discussion of theory and practice with drafting methods and the terminology required to prepare working drawings in specific or various occupational fields.

Required Textbook and Materials

AutoCAD and Its Applications - Basics, by Shumaker/Madsen/Madsen, 19th edition.
Goodheart-Wilcox, ISBN 978-1-60525-561-3

Course Objectives

Upon completion of this course, the student will be able to:

1. Define the elements of drafting that pertain to specific or various occupational fields (SCANS: C5.5, C6.5, C7.5 F1.5, F2.5, F5.5, F8.4, F10.3, F11.4)
2. Produce working drawings and sketches relevant to an individual technical discipline. (SCANS: C5.5, C6.5, C7.5, C14.5, C15.4, F1.5, F2.5, F3.4, F5.5, F10.3, F11.5, F15.5)

SCANS Skills and Competencies

Beginning in the late 1980's, the U.S. Department of Labor Secretary's Commission on Achieving Necessary Skills (SCANS) conducted extensive research and interviews with business owners, union leaders, supervisors, and laborers in a wide variety of work settings to determine what knowledge workers needed in order to perform well on a job. In 1991 the Commission announced its findings in *What Work Requires in Schools*. In its research, the Commission determined that "workplace know-how" consists of two elements: foundation skills and workplace competencies.

Course Outline

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|---|--------------------------------|
| A. Introduction | 4. Arcs |
| 1. Introduction of faculty and students | D. Other Draw Commands |
| 2. Review Syllabus | 1. Ortho Command |
| 3. Review Class Policies | 2. Direct Distance Line Method |
| 4. Basic Drawing Setup and workspace | 3. Fillet |
| B. Coordinate Systems | 4. Offset |
| 1. Absolute | 5. Arrays Polar/Rectangular |
| 2. Polar | 6. Text |
| 3. Relative | E. Edit Commands |
| C. Draw Commands | 1. Move |
| 1. Lines | 2. Copy |
| 2. Circles | 3. Rotate |
| 3. Polygons | 4. Trim/Extend |

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Course Syllabi

- F. Layers
 - 1. Create
 - 2. Lineweights
 - 3. Linetypes
 - 4. Plot/noPlot
- G. Plot
 - 1. Printers/Plotters
 - 2. Scales
 - 3.
- H. Hatch Tools
 - 1. Styles
 - 2. Angles
 - 3. Scales
 - 4. Fillmode
- I. Polylines
 - 1. Width/Halfwidth
 - 2. Open/Closed
- 3. Arcs
- 4. PEDIT
- J. Paper Space/Model Space
 - 1. What is this
 - 2. How to switch
 - 3. Scale
 - 4. Title Blocks
 - 5. Plotting
- K. Dimensioning
 - 1. Anatomy of a Dimension
 - 2. Types of Dimensions
 - 3. Dimension Styles
- L. Blocks
 - 1. Create
 - 2. Insert
 - 3. Save as Library
 - 4. WBlocks

Grade Scale

90 – 100	A
80 – 89	B
70 – 79	C
60 – 69	D
0 – 59	F

Course Evaluation

Final grades will be calculated according to the following criteria:

Homework/Labs	20%
Quizzes	10%
Projects	40%
Final Project	30%

Late Penalties will be assessed on all work turned in late. 5 points per day.

Course Requirements

- 1. Create Drawings to scale with AutoCAD.
- 2. Take Quizzes and Final Exam.
- 3. Take notes.
- 4. Access and store all work on a Network Drive.

Attendance Policy

- 1. Missing more than 20% of classes will result in an automatic “F” for the course.
- 2. Absences are counted for unexcused, excused and coming to class late.
- 3. Missing more than 20% of a class period will count as an absence.

Course Policies

1. No food, drinks, or use of tobacco products in class.
2. No foul or harsh language will be tolerated
3. Turn off all Cell Phones during lectures
4. Do not bring children to class.
5. No Cheating of any kind will be tolerated. Students caught cheating or helping someone to cheat can and will be removed from the class for the semester. Cheating can result from expulsion from LIT.
6. If you wish to drop a course, the student is responsible for initiating and completing the drop process. If you stop coming to class and fail to drop the course, you will earn an 'F' in the course.
7. BACK-Ups

It is the student's responsibility to make back-up copies of their work. Do not rely on the server to be their 100% of the time. I cannot help you if you lose your work. Remember that in order for your work to be graded, it must be in your account on the server.
8. Internet Usage
 - a. Classroom computers have access to the internet.
 - b. Student usage of the internet will be monitored.
 - c. Proper usage of the internet will be allowed. Used for classroom research or as directed.
 - d. Any unauthorized use of the internet will not be tolerated.
 - e. Improper usage of the internet, such as profanity, pornography, gambling, etc... will result in disciplinary action not limited to expulsion from LIT.

Disabilities Statement

The Americans with Disabilities Act of 1992 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. Among other things, these statutes require that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodations for their disabilities. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409) 880-1737

Course Schedule

Week	Topic	Reference
1	Course Introduction – Syllabus, instructor, , and course Policies	Handouts
	Learning Module 1: Chapter 1 Basic Drawing Setup and Workspace	21-80

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Course Syllabi

Week	Topic	Reference
2	Coordinate Systems	80-103
	Draw Commands	111-131
	Polylines	
3	Layers	143-170
	View Tools	179-203
	Object Snaps	209-226
	Edit Commands	325-351
4	Text	265-316
	Dimensioning	473-519
	Paper Space/ Model Space	867-893
5	Array	361-373
	Hatch/BHATCH	709-733
	Plot	
6	Final Project	Handout