Basic Computer Aided Drafting (DFTG 1309)

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

Prerequisite/Co-requisite: DFTG-1305

Course Description

An introduction to computer aided drafting. Emphasis is placed on setup; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating and scaling objects; adding text and dimensions; using layers; coordinate system; and plotting/printing to scale.

Required textbook and materials

1. *AutoCAD 2012* by Sham Tickoo, Delmar CENGAGE Learning
    a. ISBN number is 13:978-1-111-64850-3
2. Flash Drive – 1GB minimum
3. Notebook
4. Access to computer with AutoCAD

Course Objectives

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

1. Demonstrate the use of CAD hardware and software
2. To create
3. Display
4. Plot/print

Course outline

1. Introduction
    a. Introduction of faculty and staff
    b. Review syllabus
    c. Review class policies
    d. Review lab assignment
2. Starting with AutoCAD
    a. Handouts
    b. Beginning overview of chapters 1 thru 14
    c. Learning how to set up a drawing, use geometry, how to store and retrieve a drawing, place. Rotate and scale, use text, dimensions, layers, coordinates, how to plot a drawing
3. Intro to AutoCAD, getting started with AutoCAD
    a. Open a drawing
    b. Save a drawing
    c. Create a drawing
4. Sketching and drawing aides

   a. Use of icons, pallets and quick commands
   b. Drawing symbols
5. Creating text and basic dimensioning
   a. Editing drawings
   b. Using grips
6. Editing dimensions, dimension styles, model space
   a. Editing dimensions
   b. Plotting drawings
7. Plotting drawings, hatching and blocks
   a. Plotting drawings in AutoCAD
   b. Hatching drawings
   c. Working with blocks

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:

Activity	Percentage
Assignments	20%
Drawings	30%
Participation and notebook	10%
Test	20%
Final	20%
Total	**100%**

Late penalties will be assessed on all work turned in late, 5 points per day

Course requirements

1. Drawing set-up
2. Create and modify geometry
3. Store and retrieve pre-defined shapes
4. Placing, rotating and scaling objects
5. Create text and dimensioning
6. Create layers and coordinate system
7. Plot drawing in AutoCAD

Attendance Policy (all work during absence must be made up)

1. 5 absences allowed – 4 tardies are equivalent to 1 absence
2. 2 points per absence off final grade after 5 initial absences

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. Headphones may be worn only upon instructor approval.
5. Do not bring children to class.
6. 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 in expulsion from LIT.
7. 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.
8. Backups
   It is the student's responsibility to make back-up copies of their work. Do not rely on the server to be there 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 turned in.
9. 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 to be 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 or visit the office in Student Services in the Cecil Beeson Building.

Course Schedule

Week	Topic	Reference
1	Course introduction and policies a. Lecture b. Lab: practice drawing	Handouts
2	Introduction to AutoCAD a. Lecture b. Lab: drawing electrical symbols c. Test	Chapter 1
3/4	Getting started with AutoCAD a. Lecture b. Lab: drawing instrument symbols	Chapter 2

	c. Project: as assigned	
5/6	Sketching and drawing aides a. Lecture b. Lab: chapter exercises c. Project: electrical and instrument drawing	Chapters 3/4
7/8	Editing sketched objects a. Lecture b. Lab: chapter exercises c. Project: as assigned	Chapters 5/6
9/10	Creating text, basic dimensioning a. Lecture b. Lab: chapter exercises c. Project: as assigned d. Test	Chapters 7/8
11/12	Editing dimensions, dimension styles, model space a. Lecture b. Lab: chapter exercises c. Project: as assigned	Chapters 9/10/11
13/14/15	Plotting drawings, hatching, working with blocks a. Lecture b. Lab: as assigned	Chapters 12/13/14
16	Final project a. Lecture b. Project: as assigned c. Test	

Contact information

Contact info varies per instructor

Refer to Calendar for important dates and course schedules!