



DFTG 1309 – Basic Computer Aided Drafting

CRN: 57544 – Fall 2011

Stafford Campus – Room E100 | 1:00 pm - 4:00 pm | Mon/Wed
1 hour lecture – 2 hour lab for 16 weeks

Chair: Kris Asper

Instructor: Seymour Tatar

Instructor Contact Information:

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COURSE DESCRIPTION:

An Introduction to computer-aided drafting. Emphasis is placed on drawing setup; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects, adding text and dimensions, using levels, coordinate systems, and plot/print to scale.

PREREQUISITE:

DFTG 1305 Technical Drafting

TEXT:

All students will be required to purchase the text book:

Autocad and its Applications – Comprehensive - 17th Edition

Authors: Terence M. Shumaker/David a Madsen/David P MadsenAlan Jefferis

Publisher: The Goodheart-Willcos Company, Inc.

MATERIALS REQUIRED:

Scales – Metric, Engineering, and Architectural (triangular)

Set of drawing instruments (minimum set)

Protractor (180 degrees)

30/60 Triangle with 8" legs

45/90 Triangle with 8" legs

2GIG flash drive

note book

COURSE OBJECTIVES:

The student will demonstrate the use of CAD hardware and software to create, display, and plot/print working drawings. The student will be responsible for managing time, organizing and processing sysbols and interpreting and responding to verbal instruction in the development of the drawing assignments.

1. KNOWLEDGE:

- a. File maintenance and operation of a CAD system
- b. The principles of 2D drawing development in CAD
- c. Basic commands related to drawing, editing, dimensioning geometry and text input and editing
- d. Time efficiency advantages of engineering drawing production with CAD

2. SKILLS:

- a. Creation, annotation and dimensioning of a standard 2D engineering drawing
- b. Creation, insertion and scaling of geometric symbols
- c. Organization and processing of symbols and other information
- d. Efficient use of CAD tools to insure drawing accuracy

3. ATTITUDES/BEHAVIORS:

- a. The student will learn to follow instructions as presented in classroom.
- b. The student will demonstrate patience.
- c. The student will show respect for others.

SCANS SKILLS: The Department of Labor has identified skill sets that U.S. employers want most in entry level employees. It is our commitment to prepare every student with the knowledge and skills needed to succeed in today's dynamic environment. Toward this end the following skills will be included in this course.

- Knowing how to learn: Uses efficient learning techniques to acquire and apply new knowledge and skills.
- Reasoning: discovers a rule or principle underlying the relationship between two or more objects and applies it when solving a problem.
- Arithmetic/mathematics: performs basic computations and approaches practical problems by choosing appropriately from a variety of mathematical techniques.

The student will be presented learning techniques that can be applied to orienting oneself in space in order to ascertain specific data from geometry and will apply those techniques based on the involved relationships to attain both visual and mathematical solutions to the problem. Their understanding of these techniques of acquiring data will be measured as a part of the assignments involved in this program.

COURSE EVALUATION PROCEDURE: The student will be evaluated and receive a final grade based upon the following criteria:

- Laboratory work consisting of assigned technical drawing problems.
- A minimum of (2) tests: (a mid-term and a final examination)
- Class and laboratory attendance, active participation in class, professional attitude and growth in terms of technical skill development and teamwork within the laboratory environment shall be taken into considerations.

Course Calendar:

See attachment 1

GRADING

Exams and assignments will be given during the semester that will determine how successful you are at mastering the course material and basic skills. If you are having limited success at mastering the course material, contact the instructor for assistance.

Grading scale:

0-59 = F, 60-69 = D, 70-79 = C, 80-89 = B, 90-100 = A

Final Grading Percentage

Daily assignments	60% of the final grade
Mid-term exam	10% of the final grade
Attendance	10% of the final grade
Final exam	20% of the final grade

STUDENT ASSIGNMENTS

Drawing assignments will be assigned to enhance the learning of the AUTOCAD software. Each assignment will stress the basic skills that a student must have to gain proficiency in the use of the drawing software. The assignment will enhance the student ability to produce a clear and accurate drawing.

INSTRUCTIONAL METHODS:

In order to become proficient in the use of the drafting software, a student must read the text book and complete the assignments in a timely manner.

AMERICANS WITH DISABILITIES ACT (ADA) COMPLIANCE

Any student with a documented disability (e.g. physical, learning, psychiatric, vision, hearing etc.) who needs to arrange reasonable accommodations must contact the Disability Support Services Office (DSSO) of their respective college at the beginning of each semester. Faculty is authorized to provide only the accommodation(s) requested by the DSSO. For information and services at HCC Southwest, contact: **DR. Becky Hauri, ADA Counselor, at 713.718.7910.**

CLASS ATTENDANCE:

You are expected to attend all lecture classes and labs. You are also responsible for all materials covered in either lecture or lab. In the case of your absence, you must contact the instructor to obtain make-up assignments or arrange make-up testing, either of which can be distributed at the instructor's discretion. Class attendance is checked daily.

The instructor has the authority to drop you from the class for excessive absences, that is, you may be dropped from a course after accumulating absences in excess of 12.5 percent of the total hours of instruction (lecture and lab).

For example:

A 3-credit hour lecture class meeting 3 hours per week - 2 absences (6 hrs.) is 12.5% of the class.

A 3-credit hour lecture/lab class meeting six hours per week - 2 absences (12 hrs.) is 12.5% of the class.

Administrative drops are at the discretion of the instructor. It is your responsibility to drop a course, should you choose not to complete it. Failure to withdraw officially will result in you receiving a grade off" in the course.

Note: Although it is your responsibility to officially withdraw from a course, it is always a good idea to discuss any attendance problems with your instructor first. Class attendance is very important, but your instructor may be able to help you catch up. If you become ill or know you are going to miss class for some reason, tell your instructor as soon as possible.

Departments and programs governed by accreditation or certification standards may have different attendance policies.

SCHOLASTIC DISHONESTY:

Students are responsible for conducting themselves with honor and integrity in fulfilling course requirements. College System Officials may initiate penalties and/or disciplinary proceedings against a student accused of scholastic dishonesty. "Scholastic dishonesty" includes, but is not limited to, cheating on a test, plagiarism, and collusion.

"Cheating" on a test includes:

- Copying from another student's test paper;
- Using materials during a test that are not authorized by the person giving the test;
- Collaborating with another student during a test without authority;
- Knowingly using, buying, selling, stealing, transporting, or soliciting in whole or in part the contents of an un-administered test;
- Bribing another person to obtain a test that is to be administered.

"Plagiarism" means the misuse of another's work and the deliberate incorporation of that work into work you offer for credit. "Collusion" means the unauthorized collaboration with another person in preparing work offered for credit.

Determination of scholastic dishonesty will be at the discretion of the instructor.

Reference the following web link for additional information:

<http://www.hccs.cc.tx.us/handbookiStudentP.htm>

Attachment 1
Course Schedule
Basic Computer Aided Drafting
DFTG-1309

Week 1

Chapter 1
Introduction to class
Create drawing templates and discuss basic standards required in drawings assigned

Week 2

Chapter 2
Working with drawings and templates
Dialog box features

Week 3

Chapter 4 and Chapter 5
Basic Object Tools
Line Standards, Layers and basic plotting

Week 4

Chapter 6 and Chapter 8
View Tools
Construction Tools and Multiview drawings

Week 5

Chapter 9 and Chapter 10
Text Styles and Multiline Text
Single Line Text and additional tools

Week 6

Chapter 11 and Chapter 12
Working with Tables
Basic Object Editing Tools

Week 7

Chapter 13 and Chapter 14
Polyline and Spline Editing Tools
Arranging and Patterning Properties

Week 8

Mid-term Examination

Week 9

Chapter 15 Chapter 16
Scale Reading Mini-test
Grips and Properties
Obtaining Drawing Information

Week 10

Chapter 17 and Chapter 18
Dimension Standards and Styles
Linear and Angular Dimensioning

Week 11

Chapter 19 and Chapter 20
Dimensioning Features and Alternatives
Dimensioning Tolerances

Week 12

Work as Assigned

Week 13

Chapter 21
Editing Dimensions

Week 14

Work as Assigned

Week 15

Work as Assigned

Week 16

Final examination