

Instructor: Mike Hubka
Office Hours: Posted
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Credit hours: 3 Contact: 5 Hrs. Lecture: 2 hrs. Lab: 3 Hrs.

Program/Degree: Drafting and Design Technology / Associate in Applied Science Degree

Description: This course covers advanced-level concepts and applications of CAD design and drafting. Emphasis will be placed on advanced-level features, commands, and applications of CAD software. Upon completion, students should be able to develop and use external references and isometric drawings, apply higher-level block creation techniques and usage, including attributes. Also included in this course are advanced applications such as slide shows, three dimensional drawing, and solid modeling.

Prerequisites: DDT 123 or Permission of Instructor

Text: AutoCAD and its Applications Basics - 2002
Terence M. Shumaker/David A. Madsen
Goodheart/Wilcox Publishers

Supplies: Two 3.5 - 1.44 Mb floppy disks or one Zip disk

Course Rationale: Basic skills in Computer Aided Drafting (CAD), is only the beginning of a continuing process of maintaining proficiency in the use of CAD and remaining current new advancements in the industry. This course is designed for the intermediate student as a continuing learning process towards the use of more complex and powerful CAD commands and techniques. Knowledge and understanding of these advanced CAD concepts will enhance the student's CAD experience and will better prepare the student toward an entry level position. To accomplish these goals, this course provides:

1. Entry level or senior drafters hands on applications in the use of CAD under simulated work environment
2. Advanced CAD commands and procedures.
3. Introduction to the power of symbol libraries, 3-D drawing, and solid modeling.

Course Objectives:

1. Use CAD to prepare a working drawing for machine parts including dimensioning, and plotting drawings.
2. Create prototype drawings to be used in subsequent CAD experience.
3. Define terms and attributes of advanced CAD commands and techniques.

Assignment Schedule

Week	Topic	Assignments
1	Chapter 17 Review Dimensions	As Assigned By Instructor
2	Chapter 18 Editing dimensions	As Assigned By Instructor
3	Chapter 21 Sections Hatch Patterns	As Assigned By Instructor
4	Chapter 22 – Creating Symbols Symbols as blocks Editing Blocks	As Assigned By Instructor
5	Chapter 22 – Block Library WBLOCK command Redefining existing blocks Creating a Symbol Library	As Assigned By Instructor
6	Chapter 23 – External References Changing the Properties	As Assigned By Instructor
7	Quiz 1 Lab using the internet	As Assigned By Instructor
8	Chapter 24 – Attributes Assigning attributes Editing attributes	As Assigned By Instructor
9	Chapter 24 Editing attributes Bill of materials with attributes Extracting information from attributes	As Assigned By Instructor
10	Chapter 25 – Isometric drawings Pictorial drawing Isometric drawings Isometric Dimensions	

Assignment Schedule

Week	Topic	Assignments
11	<i>QUIZ 2</i> Lab	
12	Chapter 27 Slide Shows ACAD.PGP file Script files Custom Linetypes	
13	Final Project	
14	Final Project	
15	<i>Final</i>	

Grading Policy:

Quiz (2@150 points)	300	pts
Lab Projects	250	
Final Exam & Project	300	
Attendance, Attitude & Participation	150	
Total	1000	

NOTE: Northwest-Shoals Community College's policy regarding academic honesty and attendance will be **strictly enforced!** As a common courtesy to the instructor, you should attend classes promptly at specified starting times. If you are going to be absent, for any reason, you should contact the instructor as soon as possible. This will establish communications with the instructor about the possibility of making up your work. Make-up test and assignments shall be given on an individual basis and only with a proper excuse.

It is **"your"** responsibility to contact the instructor for make-up test and missed assignments. If you are absent for a test or assignment, because of a proper excuse, you must take the test or make up the assignment, at the next regularly scheduled class meeting. **Failure to do this, you will receive a "0" as the grade for that particular test or assignment.** Completing laboratory assignments is an integral part of your training. **All students must satisfactorily complete at least 75% of all daily lab assignments to receive a passing grade in this course.** The exact number of assignments for the course shall depend on the abilities of the entire class as a whole, and shall be determined by the end of the semester.

AMERICANS WITH DISABILITIES ACT (ADA)

It is the policy of Northwest-Shoals Community College to comply with the Americans with Disabilities Act (ADA). Any student covered under this act needing and desiring reasonable accommodations for this class should notify the instructor during the first week of class.

