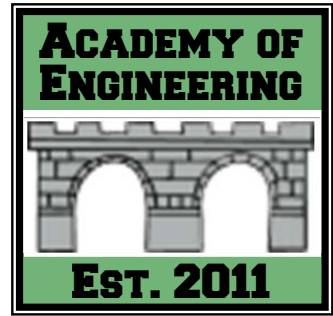


AutoCAD 3D Drawings 4 Weeks

CAD 112

50 Hrs



MODULE: 3

CREDIT AREA: Computer Science

COURSE OUTCOME: Students learn basic AutoCAD commands for 3D drawing while conducting Mechanical Engineering applications. The class concludes with a review of the students drawing portfolio and coursework handouts by the instructor.

COURSE DESCRIPTION: This is an intermediate level CAD class. Students will learn 3D drawing with AutoCAD software by conducting various projects. Course topics include: images, wireframes modeling, surface modeling, and solid modeling, rendering, image draping, and 3D texture mapping.

PREREQUISITES: CAD 111

COURSE OUTLINE:

Section	Instructor	Subject	Project	Value
1	Bren	3D Drawing - Wireframes	Drawing Project 1	10 Points
2	Bren	3D Drawing - Surface Modeling	Drawing Project 2	10 Points
3	Bren	3D Drawing – Solid Modeling	Drawing Project 3	10 Points
4	Bren	Solid Modeling Applications	Drawing Project 4	10 Points
5	Bren	Materials and Texture Mapping	Drawing Project 5	10 Points
6	Bren	Rendering	Drawing Project 6	10 Points
7	Bren	CNC Machining Operations	-	-
8			Portfolio Review	20 Points
9			Attendance	20 Points

STUDENT PERFORMANCE OBJECTIVES:

1. Demonstrate an understanding of drafting with 3D Wireframes.
2. Demonstrate an understanding of drafting with 3D Surface Modeling.
3. Demonstrate an understanding of drafting with 3D Solid Modeling.
4. Demonstrate an understanding of solid modeling applications.
5. Demonstrate an understanding of Materials and Texture Mapping on 3D solids.
6. Demonstrate an understanding of Rendering of 3D solids.
7. Observe CNC Machining Operations.
8. Prepare and present a portfolio for the class including all drawings and handouts.

METHODS OF INSTRUCTION:

1. Lecture Examples
2. Handouts
3. Demonstrations

STUDENT ASSIGNMENT REQUIREMENTS:

1. Weekly Attendance Character
2. (6) Drawing Projects
3. (1) Portfolio and 3-Ring Binder Instructor Review

EVALUATION AND GRADING STANDARDS:

The project drawings are worth (10) points each for a total of 60 points. A portfolio drawing and 3-ring binder organization instructor review is worth a total of 20 points. Attendance is worth (1) point/day for a total of 20 points. The total points for this module is **100 points**. The points from this module will be added to the total for the Computer Science Credit course to determine a final grade.

REQUIRED STUDENT SUPPLIES AND MATERIALS:

1. 11x17 Itoya Portfolio for Drawing Presentation
2. (3) Ring Binder
3. Notebook Paper & Writing Utensil
4. Handouts

ADDITIONAL INSTRUCTIONAL RESOURCES:

1. Internet Research
2. AutoCAD Help Menu