

COURSE OUTLINE

Loc Nguyen, 2012

DEPARTMENT:	Professional Technical Education
CURRICULUM:	CAD / DESIGN Technology
COURSE TITLE:	AutoCAD 3-D Modeling
COURSE NUMBER:	TDR 135
TYPE OF COURSE:	Technical Preparatory
COURSE LENGTH:	1 quarter
CREDIT HOURS:	4
LECTURE HOURS:	22
LAB HOURS:	44
CLASS SIZE:	20
PREREQUISITES:	TDR 133 Intermediate AutoCAD 2-D or Instructor Permission

COURSE DESCRIPTION:

This is an extension of AutoCAD Intermediate course to introduce the aspects of **Computer Based Three Dimensional Modeling**. Explores the fundamental concepts and workflows for creating 3-D models using AutoCAD. Using hands-on exercises representing real-world, industry-specific design scenarios.

STUDENT LEARNING OUTCOMES ADDRESSED:

1. Communication - Read and translate technical data relative to geometric spatial relationships into a graphical form easily understood by others with similar technical understanding.
2. Computation - Use basic mathematical operations as required defining geometrical spatial relationships.
3. Human Relations - Use social interactive skills to enhance learning through informal tutoring activities.
4. Critical Thinking and Problem Solving - Organize and evaluate technical data, as well as select and apply appropriate spatial relationship principles to determine problem solution.

STUDENT LEARNING OUTCOMES ADDRESSED: (cont.)

5. Technology - Select and use appropriate technological tools to create technical graphics.
6. Personal Responsibility - Take pride in own work
7. Information Literacy - Access & use information from variety of resources / data

GENERAL COURSE OBJECTIVES:

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

1. Understand the AutoCAD 3-D environment
2. Create 3-D Wireframe Modeling
3. Create Solid Primitives
4. Create Surface Modeling
5. Create Models from 2-D Profiles
6. Create Multiview Drawings from 3-D Models
7. Create cameras and lights, assign material, and create rendered images.

TOPICAL OUTLINE:

APPROX. HOURS

I. Course Overview	1
II. Understand the AutoCAD 3-D environment	5
III. Create 3-D Wireframe Modeling	12
IV. 3-D Surface Modeling	12
V. Multiview Drawings from 3-D Models	12
VI. Advanced Modeling Tools & Techniques	12
VI. Introduction to Photorealistic Rendering	<u>12</u>

Total 66

Originated or Revised BY: L. NGUYEN
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