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.
TDR 135 AutoCAD 3-D Modeling  
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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:

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<td>II. Understand the AutoCAD 3-D environment</td>
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<td>III. Create 3-D Wireframe Modeling</td>
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<td>IV. 3-D Surface Modeling</td>
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<td>V. Multiview Drawings from 3-D Models</td>
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<td>VI. Advanced Modeling Tools &amp; Techniques</td>
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Originated or Revised BY: L. NGUYEN
DATE: Jan 10, 2010