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registered AIA provider

## AutoCAD® 3D Modeling

- Tuition: \$995.00/per person
- Valid for 24 AIA hours/LUs.
- Prerequisites: Windows® 2000 or XP Operating System experience, AutoCAD 2008 (Level I)

### Courseware:

- **AutoCAD 2009: Creating and Presenting 3D Models** Autodesk Official Training Courseware (AOTC)

### Topics Include:

#### **3D Modeling**

- **Introduction to 3D:** Types of 3D Models, Navigating & Displaying 3D Models, Orbiting, Changing the 3D Display, Viewport Display.
- **Creating Solid Primitives:** About Solid Primitives, Solids - Box, Sphere, Cylinder, Cone, Wedge, Torus, Pyramid.
- **Creating Models from 2D Profiles:** Model Creation Method, Planar Surface Command, Polysolid, Extrude, Presspull, Revolve, Helical Path, Sweep, Loft.
- **Creating Composite Solids:** Creating Solids using Union, Subtract, & Intersect. Checking Interference.
- **Working in 3D:** Using & Changing the Coordinate system, UCS Icon Display, Acquiring 3D Points.

#### **Editing Models**

- **Adding Detail to Your Solid Models:** Filletting, Chamfering, and/or Slicing a Solid Model.
- **Converting Objects:** Converting 2D Objects to Solids or Surfaces, Converting to Surfaces, Converting to Solids, Thickening Surfaces into Solids.
- **Editing Solid Models:** Solid History & Editing Methods, Grip Editing Solid Models, Editing Faces – Extruding, Moving, Offsetting, Deleting, Rotating, & Tapering. Creating a Shell, Imprinting Edges, Separating Solids.
- **Extracting Geometry from Solid Models:** Copying Faces & Edges, Extracting All Model Edges, Exploding 3D Models.
- **Changing the Model Position:** Moving, Aligning, & Rotating in 3D.
- **Duplicating the Model:** Mirroring & Arraying in 3D.
- **Getting Information from 3D Objects:** Checking Solid Model Integrity, Viewing Mass Properties, Changing Face & Edge Colors.

#### **Sectioning a Model and Creating Drawings**

- **Section a Solid Model and Generate 2D Geometry:** Creating & Manipulating Section Planes, Generating 2D/3D Sections.
- **Creating Drawings from 3D Models:** Shaded & Hidden Views, Views from Flatshots & Sectionplanes, Trans-spatial Dimensions, Associative Trans-spatial Dimensions.

#### **Visualization**

- **Integrating Raster Images with 3D Models:** About Raster Images, Applications of Raster Image Integration, Process for Integrating Raster Images with 3D Models.
- **Massing Shapes with 3D Solids:** About Massing Shapes with 3D Solids, Creating a Model Using Presspull, Guidelines for Massing Shapes with 3D Solids.
- **Using the Sun:** About the Sun, About the Light Control Panel, Specifying the North Direction and a Geographic Location, About the Sun Properties Palette.
- **Using Visual Styles:** About Visual Styles, Using the Visual Styles Manager, Using the Visual Styles Control Panel, Exporting Visual Styles.
- **Using Materials:** Working with Predefined Materials, Creating & Editing Materials.
- **Navigating the Model:** Walking & Flying Through a Model, Recording an Animation, Using Animation Paths.
- **Using Lights:** About Lighting, The Light Control Panel of the Dashboard, Adding Lights to a Scene, About Selecting Lights in a Scene, About Editing Lights in a Scene.
- **Rendering:** About the Rendering Environment and Render Presets, Rendering Views, Cropped Regions, and Selected Objects, About the Render Window and Image Information, Render Output Size and Format, Render Output Size and Format, Rendering to a File, Advanced Rendering.

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