

## *ATC Training:* **AutoCAD 2010 – Creating & Presenting 3D Models**

### **Course Description**

This course provides a basic understanding of how to create and modify both solid and surface models using AutoCAD® software. Creating 3D models shows delegates how to present their designs while they are still being created, using visualization tools such as visual styles, model walk and fly-throughs, materials, and lighting. Delegates also learn how to output 3D models from AutoCAD 2010 to either paper or a distributable, electronic version.

### **Objective**

The primary objective of this courseware is to teach delegates the fundamental concepts and workflows for creating 3D models using AutoCAD 2010.

After completing this course, delegates will be able to:

- Ø Represent a design by creating solid primitives, solid or surface models from cross-sectional geometry, or composite models from multiple solid models.
- Ø Complete a solid model design by adding the necessary features to detail, duplicate, and position 3D models.
- Ø Convert 2D objects to 3D objects.
- Ø Document a 3D design by creating 2D drawings for production and visualization.
- Ø Communicate design ideas using visual styles, lights, model walk-through tools, and renderings.

### **Who Should Attend**

This courseware is for designers who are familiar with AutoCAD and proficient in working with 2D objects, and who want to create 3D models of their designs.

### **Prerequisites**

Delegates should have worked in the current or a previous release of AutoCAD, and should have experience with creating and editing basic AutoCAD objects and creating and working with layouts. It is also recommended that delegates have a working knowledge of Microsoft® Windows® Vista, Microsoft® Windows® 2000 or Microsoft® Windows® XP.

*Note: The suggested course duration is a guideline. Course topics and duration may be modified by the instructor based upon the knowledge and skill level of the course participants.*

**Course Code: EM0615\_ACAD2010CPM**

**Course Duration: 3 days**

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## **ATC Training: AutoCAD 2010 – Creating & Presenting 3D Models**

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### **Course Outline**

#### **3D Modeling**

- Ø Introduction to 3D Modelling
- Ø Creating Solid Primitives
- Ø Creating Models from 2D Profiles
- Ø Creating Composite Solids
- Ø Working in 3D

#### **Creating Models from Cross Sections**

- Ø Converting 2D Objects to Solids or Surfaces

#### **Editing Models**

- Ø Adding Detail to Your Solid Models
- Ø Converting Objects
- Ø Editing Solid Models
- Ø Extracting Geometry from Solid Models
- Ø Changing the Model Position
- Ø Duplicating the Model
- Ø Getting Information from 3D Objects

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

- Ø Sectioning a Solid Model and Generating 2D Geometry
- Ø Creating Drawings from 3D Models

#### **Visualization Tools**

- Ø Using Visual Styles
- Ø Using Lights
- Ø Using Materials
- Ø Using the Sun
- Ø Rendering
- Ø Navigating the Model
- Ø Using Cameras and Views

#### **AIT Spatial Workshops**

As an alternative to the standard ATC Creating & Presenting 3D Models course, we are also able to provide an AutoCAD 2010 Workshop covering a selection of those topics listed above. If you are interested in undertaking an AutoCAD 2010 Workshop, please contact us and we can discuss your bespoke requirements. You may also wish to incorporate items from two, maybe three different course outlines. We can accommodate this easily with a bespoke workshop customised to your needs.