

# **Certificate in Engineering Drawing (AutoCAD & SOLIDWORKS)**

## **AUTOCAD**

### **Taking the AutoCAD Tour**

- Navigating the Working Environment
- Working with Files
- Displaying Objects

### **Basic Drawing & EditingDrawing Lines**

- Drawing Rectangles
- Drawing Circles
- Drawing with Snap and Grid
- Erasing Objects

### **Drawing with Precision**

- Coordinate Entry
- Using Object Snaps
- Using Polar Tracking
- Using Object Snap Tracking
- Manipulating Objects
- Selecting Objects in the Drawing
- Moving Objects
- Copying Objects
- Arraying Objects
- Rotating Objects
- Mirroring Objects
- Scaling Objects

## **Drawing Organisation and Inquiry Commands**

- Using Layers
- Using Linetypes
- Layer States

## **Object Properties & Measurement**

- Working with Object Properties
- Quick Select
- Matching Properties
- Measuring Objects

## **Altering Objects**

- Trimming and Extending Objects to Defined Boundaries
- Creating Parallel and Offset Geometry
- Joining Objects
- Applying Fillets
- Creating a Chamfer
- Stretching Objects

## **Creating Additional Drawing Objects**

- Working with Polylines
- Drawing Splines
- Drawing Arcs
- Drawing Polygons

## **Annotating the Drawing**

- Creating Multiline Text
- Creating Single-Line Text
- Using Text Styles
- Editing Text

## **Dimensioning**

- Creating Dimensions
- Using Dimension Styles
- Editing Dimensions
- Using Multi-leaders

## **Hatching Objects**

- Hatching Objects
- Editing Hatch Objects

## **Working with Reusable Content**

- Using Blocks
- Working with DesignCenter™
- Using Tool Palettes

## **Working with Layouts (Drawing Sheets)**

- Model /Paper Space Principles
- Setting up Layouts
- Using Viewports

## **Plotting Your Drawings**

- Printing Layouts
- Plotting from Model Space
- Plotting Lineweights

## **Creating Drawing Templates**

- Using Drawing Templates

## **SOLIDWORKS**

- Concepts
- 3D Design
- Component-Based
- Terminology
- User Interface
- Windows Functions
- SOLIDWORKS Document Windows
- Function Selection and Feedback
- Design Process
- Design Intent
- Design Method
- Sketches
- Origin
- Planes
- Dimensions
- Relations
- Features
- Assemblies
- Drawings
- Model Editing