



## SolidWorks Parts, Assemblies & Drawings

Prerequisites	Length	Description
Basic Mechanical design experience, SolidWorks and knowledge of the Windows operating system.	5 Days	The course enables students to build and enhance on their current knowledge within SolidWorks mechanical design automation software. This will allow effective parametric modeling of parts, assemblies and advanced drawing creation.

### SolidWorks & The User Interface

- SolidWorks User Interface
- File References

### Design Principles of Sketching

- Sketching and Guidelines
- Sketch Relations and Dimensions

### Part Modeling

- Design Intent
- Choosing the Best Profile and Sketch Plane
- Boss and Cut Features
- Using the Hole Wizard
- Filleting
- Design Library

### Modeling a Casting or Forging

- Design Intent
- Choosing the Best Profile and Sketch Plane
- Boss and Cut Features
- Using the Hole Wizard
- Filleting
- Design Library

### Patterning

- Reference Geometry
- Linear, Circular and Mirror Patterns
- Sketch Driven Patterns

### Revolved Features

- Revolved Features
- Material and Mass Properties

### Shelling & Ribs

- Shell a part and add Ribs
- Analyzing & Adding Draft
- Fillets and Thin Features

### Configurations

- Creating and Using Configurations
- Equations and Linking Values

### Editing

- Editing Concepts
- Repairing Sketch Issues
- Making Design Changes
- FilletXpert, DraftXpert, SimulationXpress

### Bottom-Up Assembly Modeling

- Bottom-Up Assembly Method
- Creating a New Assembly
- Position of the First Component
- FeatureManager Design Tree & Symbols
- Adding Components and Sub-Assemblies

### Using Assemblies

- Creating, Analyzing, Managing Assemblies
- Exploded Assemblies, Explode Line Sketch
- Using Part Configurations in Assemblies
- Creating Drawing Views of Assemblies

### Drawing Sheet Formats & Templates

- User Defined Properties in the Template
- Customizing a Sheet Format
- Defining the Title Block
- Update Sheet Formats

### Drawing Sheets & Views

- Model, Projected, Section, Detail and Broken View Creation and Settings
- Center-Mark & Centerlines
- Annotations
- Blocks

### Dimensions in Drawings

- Creating, Moving & Deleting Dimensions
- Dimension Properties

### Bill of Materials & Tables in Drawings

- Creating & Managing a Bill of Materials
- Design Tables in the Drawing

### DWG Support and eDrawings

