

# Course Outline

## PREREQUISITES:

Users attending this course are expected to have design experience and completed the 'SolidWorks Essentials' and 'Advanced Part Modelling' courses.

## DESCRIPTION:

This course is designed to teach you how to use surface features to build parts using SolidWorks software. Case studies focus on consumer product design and lessons centre on the combined use of solids and surfaces, with the goal always being to create a good solid.

### Lesson 1: Understanding Surfaces

- Solids and surfaces
- Working with surface bodies
- Why use surfaces?
- Continuity explained
- Workflow with surfaces

### Lesson 2: Introduction to Surfacing

- Similarities between solid and surface modelling
- Basic surfacing

### Lesson 3: Solid-Surface Hybrid Modelling

- Hybrid modelling
- Using surfaces to modify solids
- Interchanging between solids and surfaces
- Performance implications

- Surfaces as construction geometry

- Making copies of faces

### Lesson 4: Repairing and Editing Imported Geometry

- Importing data
- Repairing and editing imported geometry

### Lesson 5: Advanced Surface Modelling

- Stages in the process
- Ruled surfaces
- Lofting surfaces
- Design changes

### Lesson 6: Blends and Patches

- Complex blends
- Smoothing patches
- Boundary surface
- Freeform feature
- Corner blends

### Lesson 7: Master Model Techniques

- Introduction to master models
- Surface master model technique
- Working with a solid master model
- SolidWorks Explorer

