

Users attending this course must have mechanical design experience and must have completed the SOLIDWORKS Essentials course. Whilst not a prerequisite, our Advanced Part Modelling course would certainly help you get the most out of this surfacing course.

COURSE DETAILS:

The surface modelling course is a 2 day course aimed at engineers and designers who model products with complex shapes, often found in consumer products, moulded and/or cast parts. You will learn to produce free-form shapes using a wide range of surfacing tools. The type of surfaces covered vary from flat standalone surfaces to bridging surfaces with curvature continuity.

You will learn to work with hybrid models (partly solid, partly surface), and will acquire all the necessary techniques to produce parametric designs of ergonomic shapes. You will learn to transform those surface models into solid parts ready to be integrated into assemblies.

As well as covering the official course curriculum, we will also incorporate lots of tips and techniques on how to achieve smooth shapes with precision and efficiency. At the end of this course you will have an extended knowledge of the various techniques used for complex modelling and surfacing in SOLIDWORKS, allowing you to design robust and elegant products.



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
- Hybrid modelling
 Using surfaces to y
- Using surfaces to modify solids
 Interchanging between solids and surfaces
- Performance implications
- Surfaces as construction geometry
- Making copies of faces

LESSON 4: REPAIRING & 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

