

SOLIDWORKS Surface Modeling

OVERVIEW

CLASSROOM LENGTH: 2 days / **INSTRUCTOR-LED ONLINE LENGTH:** 4 days

PREREQUISITES: We recommend completing the SOLIDWORKS Essentials and Advanced Part Modeling course.

DESCRIPTION: Surface Modeling is a two-day course that teaches you how to build free form shapes using SOLIDWORKS mechanical design automation software.

LESSON 1:

UNDERSTANDING SURFACES

- Solids and Surfaces
- What is a Solid?
- Creating Solids from Surfaces
- Decomposing a Solid into Surfaces
- Working with Surface Bodies
- Why Use Surfaces?
- Continuity Explained
- Workflow with Surfaces

LESSON 2:

INTRODUCTION TO SURFACING

- Similarities Between Solid and Surface Modeling
- Basic Surfacing
- Alternative to Trim

LESSON 3:

SOLID-SURFACE HYBRID MODELING

- Hybrid Modeling
- Using Surfaces to Modify Solids
- Interchanging Between Solids and Surfaces
- Performance Implications
- Surfaces as Construction Geometry
- Making Copies of Faces
- Flattening Surfaces

LESSON 4:

REPAIRING AND EDITING

- Importing Data
- File Translation
- Why Do imports Fail?
- Importing a STEP File
- Geometry
- Importing Data
- Repairing and Editing Imported Geometry

LESSON 5:

BLENDS AND PATCHES

- Smoothing Patches
- Boundary Surface
- Freeform Feature
- Corner Blends

LESSON 6:

COMPLEX BLENDS

- Complex Blends
- Freeform Feature

LESSON 7:

ADVANCED SURFACE MODELING

- Stages in the Process
- Ruled Surfaces
- Lofting Surfaces
- Modeling the Lower Half
- Conclusion
- Design Changes

LESSON 8:

MASTER MODEL TECHNIQUES

- Introduction to Master Models
- Surface Master Model Technique
- Working with a Solid Master Model
- Specialized Features for Plastic Parts