SOLIDWORKS Surface Modeling

Overview:

This course teaches you how to build freeform shapes using the SOLIDWORKS mechanical design automation software.

Duration:

InClass: 2 Days (Full Time) 8:30am- 4:30pm

Distance Learning: 7 Days (Part Time)

Pre-requisites:

- Complete / attend Introduction to Technical Drawing course or similar experience
- Complete the SOLIDWORKS Essentials
- Computer literacy skills
- Understanding & reading technical drawings

Understanding Surfaces

- Solids and surfaces
- What is a solid
- Behind the scenes
- Creating solids from surfaces
- Decomposing a solid into surfaces
- Additional surface concepts
- Why use surfaces?
- Continuity explained
- Workflow with surfaces

Introduction to Surfacing

- Similarities between solid and surface modelling
- Basic surfacing
- Alternative to trim

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
- Flattening surfaces

Repairing and Editing Imported Geometry

- Importing data
- File translations
- Why do imports fail?
- SOLIDWORKS import options
- Importing a STEP file
- Comparing geometry
- Addressing translation errors
- Repairing and editing imported geometry
- Procedure for rebuilding fillets

Blends and Patches

- Smoothing patches
- Boundary surface
- Corner blends

Complex Blends

- Complex blends
- Freeform feature

Advanced Surface Modelling

- Stages in the process
- Modelling the lower half
- Design changes

Master Model Techniques

- Introduction to master models
- Surface master model techniques
- Working with a solid master model
- Specialized features for plastic parts