# MOLD DESIGN USING SOLIDWORKS

## PREREQUISITES
- SolidWorks Essentials, Advanced Part Modeling or equivalent experience.

## LENGTH
- 2 Days

## DESCRIPTION
- Mold Design Using SolidWorks teaches you several manual mold creation techniques and how to use the Mold Tools in SolidWorks Mechanical design automation software.

### SURFACE CONCEPTS & IMPORTED GEOMETRY
- Hide/Show Tree Items
- Accessing Commands
- Importing Data
- 3D Model Types
- Case Study: Solids vs. Surfaces
- Creating Solids from Surfaces
- Decomposing a Solid into Surfaces
- Additional Surface Concepts
- Importing and Mold Design
- File Translation
- Case Study: Importing a STEP File
- Comparing Geometry
- Addressing Translation Errors
- Case Study: Repairing and Editing Imported Geometry
- Procedure for Rebuilding Fillets
- Exercise 1: Import Diagnosis
- Exercise 2: Using Import Surface and Replace Face

### CORE & CAVITY
- Core and Cavity Mold Design
- SolidWorks Mold Tools
- Case Study: Camera Body
- Mold Analysis Tools
- Analyzing Draft in a Model
- Using the Draft Analysis Tool
- Draft Analysis Options
- Adding Draft
- Scaling the Model
- Establish the Parting lines
- Shut-Off Surfaces
- Creating the Parting Surface
- Surface Bodies
- Creating the Mold Design
- Seeing Inside the Mold
- Interlocking the Mold Tooling
- Creating Part and Assembly Files
- Exercise 3: Casting
- Exercise 4: Ribbed Part
- Exercise 5: Dustpan

### SIDE CORES & PINS
- Additional Mold Tooling
- Case Study: Power Saw Housing
- Side Cores and Core Pins
- Case Study: Mixer Base
- Modifying Shut-Off Surfaces
- Exercise 6: Towing Mirror
- Exercise 7: Completing the Mixer Base
- Exercise 8: Electrode Design

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► ADVANCED PARTING LINE OPTIONS
  ■ Case Study: Manual Parting Line
  ■ Case Study: Splitting a Part
  ■ Exercise 9: Peeler

► CREATING CUSTOM SURFACES FOR MOLD DESIGN
  ■ Surface Modeling for Mold Design
  ■ Case Study: Drill Bezel
  ■ Case Study: Router Bottom
  ■ Exercise 10: Power Strip
  ■ Exercise 11: Router Top

► ALTERNATIVE METHODS FOR MOLD DESIGN
  ■ Alternate Methods for Mold Design
  ■ Case Study: Using Combine and Split
  ■ Creating a Cavity
  ■ Case Study: Using Surfaces
  ■ Techniques for Mold Design
  ■ Exercise 14: Handle
  ■ Exercise 15: Filter

► REUSABLE DATA
  ■ Reusing Data
  ■ Task Pane
  ■ SolidWorks Resources
  ■ Design Library
  ■ File Explorer
  ■ Case Study: 3D ContentCentral
  ■ Library Features
  ■ Case Study: Create a Library Feature
  ■ Configurations in Library Features
  ■ Case Study: Water Line
  ■ Smart Components
  ■ Exercise 16: Smart Components
  ■ Exercise 17: Complete Mold Insert Project
  ■ Customizing a Sheet Format
  ■ Defining the Title Block
  ■ Update Sheet Formats

► COMPLETING THE MOLD BASE
  ■ Case Study: Mold Base
  ■ Organizing the Assembly
  ■ Modifying the Lifters
  ■ Lifter Motion
  ■ Ejector Pins
  ■ Cooling the Mold
  ■ Making the Drawing
  ■ Making Changes
  ■ Completing the Process