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# COURSE OUTLINE

## Mold Design Using SOLIDWOKRS

**Duration: 2.0 Day/s**

Prerequisites: SOLIDWORKS Advanced Part Modeling

Mold Design Using SOLDIWOKRS teaches you several manual mold creation techniques and how the Mold Tools in SOLIDWORKS Mechanical design automation software.

**Course Outline**

- Introduction
  - About This Course
  - Windows 7
  - Use of Color

- Lesson 1: Surface Concepts and Imported Geometry
  - Course Overview
  - Hide/Show Tree Item
  - Accessing Commands
  - Importing Data
  - 3D Model Types
  - Definition
  - Case Study: Solid vs. Surface
  - Terminology
  - File Translators
  - Modeling Systems
  - File Translation
  - Why Do Imports Fail?
  - Diagnosis and Repair
  - Case Study: Repairing and Editing Imported Geometry
  - Checking Solid Bodies
  - Making Copies of Faces
  - Case Study: Import Diagnostics
  - Repair Gaps
  - Repairing Faces

- Lesson 2: Core and Cavity
  - Core and Cavity Mold Design
  - SOLIDWORKS Mold Tools
  - Case Study: Camera Body
  - Mold Analysis Tools
  - Analyzing Draft on a Model
  - Using the Draft Analysis Tool
  - Draft Analysis Options
  - Adding Draft
  - Scaling the Model
  - Establish the Parting Lines
  - Shut-Off Surfaces
  - Surfaces Bodies
  - Creating the Mold Tooling
  - Seeing Inside the Mold
  - Interlocking the Mold Tooling
  - Creating Part and Assemblies Files

- Lesson 3: Side Cores and Pins
  - Additional Mold Tooling
  - Case Study: Power Saw Housing
  - Trapped Molding Areas
  - Side Cores
  - Feature Freeze
  - Lifters
  - Core Pins
  - Manual Selection Techniques
  - Case Study: Mixer Base
  - Modifying Shut-Off Surfaces
  - Completing the Tooling

- Lesson 4: Advanced Parting Line Options
  - Case Study: Manual Parting Line
  - Case Study: Splitting a Part

- Lesson 5: Creating Surfaces for Mold Design
  - Surfacing Modeling for Mold Design
  - Case Study: Drill Bezel
  - Case Study: Router Bottom

- Lesson 6: Advanced Surfacing for Mold Design
  - Surface Modeling for Mold Design
  - The Mixer
  - Case Study: Mixer Rear Housing
  - Case Study: Mixer Handle

- Lesson 7: Alternative Methods for Mold Design
  - Alternate Methods for Mold Design
  - Case Study: Using Combine and Split
  - Creating a Cavity
  - Case Study: Cavity
  - Case Study: Using Surfaces
  - Techniques from Mold Tooling

- Lesson 8: Reusable Data
  - Reusing Data
  - Task Pane
  - SOLIDWORKS Resources
  - Design Library
  - File Explorer
  - Case Study: 3D ContentCentral
  - Library Features
  - Case Study: Create A Library Feature
  - Configuration in Library Features
  - Case Study: Water Line
  - Smart Components

- Lesson 9: 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