

# SOLIDWORKS CAM Standard Course

**LENGTH: 3 DAYS**

**Prerequisites:** Basic experience with SOLIDWORKS software and the Windows operating system.

**Description:** This course teaches how to use the SOLIDWORKS CAM Standard software to generate, modify and post process 2.5 axis milling toolpaths used for the machining of SOLIDWORKS part files.



## Topics covered in this course are:

### Lesson 1: SOLIDWORKS CAM Basics and User Interface

- What is SOLIDWORKS CAM?
- SOLIDWORKS CAM User Interface
- Process Overview
- Case Study: Generate Toolpaths and NC Code
- Exercise 1: Generate Toolpaths and NC Code

### Lesson 2: Automatic Feature Recognition (AFR) and Operation Modification

- Working with Features, Operations and Toolpaths
- Case Study: Working with Features, Operations and Toolpaths
- Exercise 2: Generate and Modify Toolpaths

### Lesson 3: Interactive Feature Recognition (IFR)

- Interactive Feature Creation
- Case Study: AFR and IFR Feature Creation
- Case Study: IFR 2.5 Axis Feature and Operation Creation
- Case Study: IFR 2.5 Axis Feature Selection Filters
- Exercise 3: Interactive Feature Creation

### Lesson 4: Interactive Operations

- Interactive 2.5 Axis Mill Operations
- Case Study: Interactive Operation Creation
- Case Study: Create Operations Save Operation Plan
- Case Study: Save Operation Plan
- Exercise 4: Interactive Operations

### Lesson 5: Merging Features and Operations

- Machining Similar Features
- Case Study: Combine Operations
- Case Study: Combine Selected Operations
- Exercise 5: Combine and Link Operations

### Lesson 6: Avoid and Contain Areas

- Adding Avoid and Contain Areas
- Case Study: Add Avoid Area
- Exercise 6: Avoid Areas

### Lesson 7: Pattern Features and Mirror Toolpaths

- Patterning
- Case Study: Create Linear, Circular and Sketch Driven Patterns
- Case Study: Mirror Toolpaths
- Exercise 7: Pattern and Mirror Toolpaths

### Lesson 8: Advanced Features and Operations

- Advanced Feature Creation
- Case Study: Engrave Feature Creation
- Case Study: Curve Feature Creation
- Case Study: Multi-stepped Hole Machining
- Case Study: Tap and Thread Mill
- Case Study: Corner Round and Chamfer Machining

- Case Study: Multi Surface Feature Creation
- Exercise 8: Advances Features and Operations
- Exercise 9: Multi Surface Machining

### Lesson 9: Customizing the Technology Database

- SOLIDWORKS CAM Technology Database (TechDB)
- Case Study: User Defined Tool Creation
- Case Study: TechDB Add Machine
- Case Study: TechDB Add Tool
- Case Study: TechDB Create and Apply Strategy
- Exercise 10: User Defined Tools
- Exercise 11: Add Tool to Tool Crib
- Exercise 12: Customize Technology Database

### Appendix A: Considerations for Waterjet, Plasma and Laser Machining

- Waterjet, Plasma and Laser Machining
- Case Study: Plasma Workflow

### Appendix B: Tolerance Based Machining

- Tolerance Based Machining Overview
- Case Study: Tolerance Based Machining



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