

## Mold Design Using SOLIDWORKS – 2 Days (14h)

\*The "SOLIDWORKS Advanced Part Modeling" Course is required for this training.  
\*\*The "SOLIDWORKS Surface Modeling" is recommended prior to this course.

### 1. Surface Concepts and Imported Geometry

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- Surfaces in Mold Design
- 3D Model Types
- Geometry vs Topology
- Creating Solids from Surfaces
- Decomposing a Solid into Surfaces
- Additional Surface Concepts
- Surfaces Concepts Takeaways
- Importing and Mold Design
- File Translation
- SOLIDWORKS Import Options
- Addressing Translation Errors
- Repairing and Editing Imported Geometry
- Procedure for Rebuilding Fillets

### 2. Core and Cavity

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- Core and cavity mold design modeling
- SOLIDWORKS mold tools
- Mold analysis tools
- Analyzing drafts on a model
- Using the Draft Analysis tool
- Draft analysis options
- Adding drafts
- Scaling the model
- Establishing parting lines
- Shut-off surfaces
- Creating parting surfaces
- Surface bodies
- Creating the mold tooling
- Seeing inside the mold
- Interlocking the mold tooling
- Creating part and assembly files

### 3. Side Cores and Pins

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- Additional Mold Tooling
- Trapped Molding Areas
- Side Cores
- Feature Freeze
- Lifters
- Core Pins
- Manual Selection Techniques
- Modifying Shut-Off Surfaces
- Completing the Tooling

### 4. Advanced Parting Lines Options

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- Manual Parting Lines
- Splitting a Part

### 5. Creating Custom Surfaces for Mold Design

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- Surface Modeling for Mold Design
- Manual Interlock Surfaces
- Manual Parting Surface Techniques
- Organizing Manual Shut-Off Surfaces

### 6. Advanced Surfacing for Mold Design

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- Surface Modeling for Mold design
- Manual Parting Surface
- Manual Shut-Off Surfaces
- No Fill Shut-Off Surfaces
- Manual Side Cores

see Part 2 on next page »

**Course Objectives :** At the end of each course, students will know the capabilities of the software and will be able to use the learned features.

**Training Course :** Training is given in class at SolidXperts or online where each student has access to a workstation or online product version.

**Methodology :** Training is based on case studies demonstrated by the instructor. At the end of each lesson, time will be given for exercises.

**Competences Evaluation :** During the classwork, the instructor will correct the exercises on-demand and explain the solutions to the entire class if needed.

**Instructor :** SolidXperts trainers are Certified SolidWorks Instructors (CSWI) and authorized by Emploi-Québec.

**Course Materials :** One or more training manuals are included with the training course.

**Attestation :** A certificate will be given to each student at the end of the course to attest to the successful completion of the requirements for the course.

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## SOLIDWORKS Mold Design (Part 2)

### 7. Alternative Methods for Mold Design

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- Alternate Methods for Mold Design
- Using Combine and Split
- Creating a Cavity
- Techniques for Mold Tooling

### 8. Reusable Data

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- Reusing Data
- Task Pane
- SOLIDWORKS Resources
- Design Library
- File Explorer
- Library Features
- Configurations in Library Features
- Smart component

### 9. Completing the Mold Base

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- Organizing the Assembly
- Modifying the Lifters
- Lifter Motion
- Ejector Pins
- Cooling the Mold
- Making the Drawing
- Making Changes
- Process Completion

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