



# SolidWorks Essentials 2009 Training Course



## Course Syllabus

Duration: 4 days – Course Outline: Training Content

<p><b>Lesson 1:</b> SolidWorks Basics &amp; the User Interface</p> <p><b>Lesson 2:</b> Introduction to Sketching</p> <p><b>Lesson 3:</b> Basic Part Modelling</p> <p><b>Lesson 4:</b> Modelling a Casting or Forging</p> <p><b>Lesson 5:</b> Patterning</p> <p><b>Lesson 6:</b> Revolved Features</p> <p><b>Lesson 7:</b> Shelling and Ribs</p>	<p><b>Lesson 8:</b> Editing, Repairs</p> <p><b>Lesson 9:</b> Editing, Design Changes</p> <p><b>Lesson 10:</b> Configurations of Parts</p> <p><b>Lesson 11:</b> Design Tables and Equations</p> <p><b>Lesson 12:</b> Using Drawings</p> <p><b>Lesson 13:</b> Bottom-Up Assembly Modelling</p> <p><b>Lesson 14:</b> Using Assemblies Options Settings Document Templates</p>
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### Prerequisites:

Students attending this course are expected to have the following:  
 Mechanical design experience; experience with the Windows™ operating system.  
 Review the SolidWorks tutorials and getting started guide included with your software.

<p><b>Lesson 1:</b>  <b>SolidWorks Basics and the User Interface.</b></p> <ul style="list-style-type: none"> <li>• What is the SolidWorks Software?</li> <li>• Design Intent</li> <li>• The SolidWorks User Interface</li> </ul>	<p><b>Lesson 2:</b>  <b>Introduction to Sketching.</b></p> <ul style="list-style-type: none"> <li>• 2D Sketching</li> <li>• What are We Going to Sketch?</li> <li>• Sketch Entities</li> <li>• Rules That Govern Sketches</li> <li>• Design Intent</li> <li>• Dimensions</li> <li>• Extrude</li> </ul>	<p><b>Lesson 3:</b>  <b>Basic Part Modelling.</b></p> <ul style="list-style-type: none"> <li>• Basic Modelling, Terminology</li> <li>• Best Profile &amp; Sketch Plane</li> <li>• Boss Feature</li> <li>• Cut Feature</li> <li>• Using the Hole Wizard</li> <li>• Filletting</li> <li>• Drawing Basics</li> <li>• Dimensioning</li> </ul>
<p><b>Lesson 4:</b>  <b>Modelling a Casting or Forging.</b></p> <ul style="list-style-type: none"> <li>• Design Intent</li> <li>• Boss Feature with Draft</li> <li>• Symmetry in the Sketch</li> <li>• Sketching Inside the Model</li> <li>• View Options &amp; Keyboard Shortcuts</li> <li>• Using Model Edges in a Sketch</li> <li>• Creating Trimmed Sketch Geometry</li> <li>• Using Copy and Paste</li> </ul>	<p><b>Lesson 5:</b>  <b>Patterning.</b></p> <ul style="list-style-type: none"> <li>• Why Use Patterns?</li> <li>• Reference Geometry</li> <li>• Linear Pattern</li> <li>• Circular Patterns</li> <li>• Mirror Patterns</li> <li>• Sketch Driven Patterns</li> </ul>	<p><b>Lesson 6:</b>  <b>Revolved Features.</b></p> <ul style="list-style-type: none"> <li>• Design Intent</li> <li>• Revolved Features</li> <li>• Sweep Features</li> <li>• Edit Material</li> <li>• Mass Properties</li> <li>• SimulationXpress</li> <li>• Using the Wizard</li> </ul>

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Duration: 4 days – Course Outline: Continued

<p><b>Lesson 7:</b> <b>Shelling and Ribs.</b></p> <ul style="list-style-type: none"> <li>• Shelling and Ribs</li> <li>• Analyzing and Adding Draft</li> <li>• Other Options for Draft</li> <li>• Shelling &amp; Ribs</li> <li>• Full Round Fillets</li> <li>• Thin Features</li> </ul>	<p><b>Lesson 8:</b> <b>Editing, Repairs.</b></p> <ul style="list-style-type: none"> <li>• Part Editing</li> <li>• Check Sketch for Feature</li> <li>• FilletXpert</li> <li>• DraftXpert</li> </ul>	<p><b>Lesson 9:</b> <b>Editing, Design Changes.</b></p> <ul style="list-style-type: none"> <li>• Design Changes</li> <li>• Information From a Model</li> <li>• Rebuilding Tools</li> <li>• Sketch Contours</li> </ul>	<p><b>Lesson 10:</b> <b>Configurations of Parts.</b></p> <ul style="list-style-type: none"> <li>• Configurations</li> <li>• Using Configurations</li> <li>• Modify Configurations</li> <li>• Editing Parts that Have Configurations</li> <li>• Design Library</li> </ul>
<p><b>Lesson 11:</b> <b>Design Tables and Equations.</b></p> <ul style="list-style-type: none"> <li>• Design Tables</li> <li>• Link Values &amp; Equations</li> <li>• Using Existing Design Tables</li> <li>• Modelling Strategies for Configurations</li> </ul>	<p><b>Lesson 12:</b> <b>Using Drawings.</b></p> <ul style="list-style-type: none"> <li>• More About Making Drawings</li> <li>• Section Views</li> <li>• Model Views</li> <li>• Detail &amp; Projected Views</li> <li>• Annotations</li> <li>• Drawing Sheets</li> <li>• Title Bolcks</li> </ul>	<p><b>Lesson 13:</b> <b>Bottom-Up Assembly Modelling.</b></p> <ul style="list-style-type: none"> <li>• Bottom-Up Assembly</li> <li>• Creating a New Assembly</li> <li>• Position of the First Component</li> <li>• Feature Manager Design Tree and Symbols</li> <li>• Adding Components</li> <li>• Using Part Configurations in Assemblies</li> <li>• Creating Copies of Instances</li> <li>• Component Hiding and Transparency</li> <li>• Component Properties</li> <li>• Sub-assemblies</li> <li>• Smart Mates</li> <li>• Inserting Sub-assemblies</li> <li>• Pack and Go</li> </ul>	<p><b>Lesson 14:</b> <b>Using Assemblies.</b></p> <ul style="list-style-type: none"> <li>• Using Assemblies</li> <li>• Analyzing the Assembly</li> <li>• Changing the Values of Dimensions</li> <li>• Exploded Assemblies</li> <li>• Explode Line Sketch</li> <li>• Bills of Materials &amp; Drawings</li> </ul>

For more information:

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