



### CAMWorks Essentials - 4 & 5 Axis

PREREQUISITES	LENGTH	DESCRIPTION
<ul style="list-style-type: none"> <li>■ CAMWorks Essentials - 3 Axis Training.</li> </ul> <p>▶ <b>INTRODUCTION TO CAMWORKS 4/5 AXIS PROGRAMMING</b></p> <ul style="list-style-type: none"> <li>■ Introduction to Course Material</li> <li>■ Benefits of 4/5 Axis Machining</li> <li>■ Types of Machines</li> <li>■ User Interface</li> <li>■ Process Overview</li> <li>■ Overview of the Process to Generate Multi-Axis Toolpath</li> </ul> <p>▶ <b>3+2 AXIS PROGRAMMING, 3 TO 5 AXIS CONVERSION, AND WRAPPED FEATURES</b></p> <ul style="list-style-type: none"> <li>■ 3 + 2 Axis Machining</li> <li>■ 3 to 5 Axis Conversion</li> <li>■ Wrapped Toolpath</li> </ul> <p>▶ <b>MULTI SURFACE FEATURES FOR MULTI AXIS OPERATIONS</b></p> <ul style="list-style-type: none"> <li>■ Defining a Surface Using Part Surfaces</li> <li>■ Defining a Multi-Surface Feature Using a Surface Body</li> <li>■ Creating and Modifying a Surface Body in SOLIDWORKS for Multi Surface Features</li> </ul> <p>▶ <b>MULTI AXIS OPERATION PARAMETERS</b></p> <ul style="list-style-type: none"> <li>■ Multi Axis Operation Pattern Types</li> <li>■ Multi Axis Operation Axis Control</li> <li>■ Multi Axis Operation Gouge Checking</li> </ul>	<p>2 Days</p>	<ul style="list-style-type: none"> <li>■ This course teaches how to use the 4 &amp; 5 Axis Milling feature in the CAMWorks software to machine complex parts, and contoured surfaces.</li> </ul> <p>▶ <b>MULTI AXIS OPERATIONS</b></p> <ul style="list-style-type: none"> <li>■ Port Machining</li> <li>■ Impeller Machining</li> <li>■ Using a Clean Core to Generate 5 Axis Toolpath</li> <li>■ Machining a Screw</li> <li>■ 5 Axis Trimming</li> </ul> <p>▶ <b>MULTI AXIS ROUGHING</b></p> <ul style="list-style-type: none"> <li>■ 5 Axis Roughing</li> <li>■ 5 Axis Roughing an Impeller Blade</li> </ul> <p>▶ <b>SWARF MACHINING</b></p> <ul style="list-style-type: none"> <li>■ Swarf Milling</li> <li>■ Swarf Milling Impeller Blade</li> <li>■ Swarf Milling 5 Axis Trimming</li> </ul> <p>▶ <b>5 AXIS DRILLING</b></p> <ul style="list-style-type: none"> <li>■ 5 Axis Drilling</li> </ul> <p>▶ <b>5 AXIS POST PROCESSOR CONSIDERATIONS</b></p> <ul style="list-style-type: none"> <li>■ 5 Axis Post Processors</li> <li>■ Multi-Axis Parameters</li> </ul>