



# CNC 3-Axis Milling Programmer



<b>Date</b>	Friday January 17 <sup>th</sup> , 2025	<b>Orientation Time</b>	8:00 a.m. (CLOSED to instructors)
<b>Location</b>	Cuyahoga Valley Career Center 8001 Brecksville Rd, Brecksville, OH 44141	<b>Contest Time</b>	Immediately following orientation (OPEN contest)
<b>Scope of Contest</b>	<p>This competition will assess the ability to program CNC milling machines, interpret prints (including GDT), and measure/gauge parts. Competitors also will demonstrate theoretical knowledge of CNC machine configuration, setup, and operations.</p> <p><b>The use of generative Artificial Intelligence (AI) is strictly prohibited and will result in an automatic disqualification of the contestant.</b></p>		
<b>Testing</b>	Yes		
<b>Eligibility</b>	2 contestants per chapter (Building IRN)		
<b>Clothing</b>	Clothing Classification Guide – Class D		
<b>Provided by Contestant</b>	<ul style="list-style-type: none"> <li>• Professional Resume - Typed Hardcopy</li> <li>• Emergency Medical Forms (Contestants must have this to compete)</li> <li>• Computers will be provided for contestants with Mastercam software already installed and operational.</li> <li>• Contestants may bring their own laptop, but must come with either the 2023, 2024, or 2025 version(s) of Mastercam software or Autodesk Fusion 360 installed and operational.</li> <li>• Safety Glasses</li> <li>• G&amp;M Handbook (Optional)</li> <li>• Machinery Handbook (Optional)</li> <li>• Non-programmable calculator</li> <li>• Blank note paper</li> <li>• Two pencils</li> <li>• Verification of Tool Training and Safety (Contest Specific See forms on SkillsUSA Ohio Web site)</li> <li>• <b>Disqualifications:</b> Cell phone in competition area, smart watches. Use of internet or Artificial Intelligence (AI)</li> </ul>		
<b>Contest Standards</b>	<p><b>Contest Skilled Performance Standards</b></p> <p><b>CNCM 1.0</b> - Apply basic machining skills per industry standards as set forth by the technical committee.</p> <p><b>CNCM 2.0</b> - Demonstrate knowledge of CNC programming per industry</p>	<p><b>Aligned ODEW Manufacturing Career Field Technical Content Standard Outcomes</b></p> <p><b>Outcome 6.9</b> Computer Numerical Control (CNC)</p> <p><b>Outcome 6.9</b> Computer Numerical Control (CNC)</p>	

	<p>standards as set forth by the technical committee.</p> <p><b>CNCM 3.0</b> - Perform mathematical calculations as needed for calculating speeds, feeds, program coordinates, angles, radii and tangent points.</p>	<p><b>Outcome 6.1</b> Measurement and Interpretation <b>Outcome 6.2</b> Layout and Planning <b>Outcome 6.3</b> Cutting</p> <p>Above Outcomes can be found in the following ODEW courses: 176006 Machining with Industrial Milling Machines 176007 Computer Numerical Control Technology with Industrial Mills and Lathes</p>
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