



## MACHINING

Machining youth apprentices assist with basic machine operations, processes, and tools. Apprentices must adhere to industry safety and security standards.

**Length of Apprenticeship:** One or two years

## OCCUPATIONAL COMPETENCIES

Machining youth apprentices must complete all **7** Manufacturing Fundamentals Competencies in Year 1. No substitutions to this list. **Year 1** Youth apprentices must also complete a minimum of **nine** of the 14 Machining competencies. **Year 2** youth apprentices must complete **13** of the 14 machining competencies using a minimum of one different process. Employers can substitute up to **1** competency with another occupationally appropriate skill. Substitutions must be added to the competency list for assessment. Note that where necessary, skills can be simulated.

NOTE: Students completing a 2-year machining processes youth apprenticeship must select a minimum of 1 different machining process than the first year and indicate it in the appropriate place on this guide.

**Document the Machining Process for each year in this guide.**

\*\*\*Students who completed a previous Manufacturing YA program do *not* need to repeat the Manufacturing Fundamentals Competencies.

Manufacturing Fundamentals Competencies	Machining Competencies
<ol style="list-style-type: none"> <li>1. Focus on customer needs</li> <li>2. Use various instruments</li> <li>3. Operate tools and equipment safely</li> <li>4. Practice quality assurance principles</li> <li>5. Follow personal safety requirements</li> <li>6. Maintain a safe work environment</li> <li>7. Demonstrate professional role to be used in an emergency</li> </ol>	<ol style="list-style-type: none"> <li>1. Read machining technical drawings and work orders</li> <li>2. Interpret machining symbols and procedures</li> <li>3. Perform safety checks</li> <li>4. Operate machining equipment</li> <li>5. Monitor machining product and process specifications</li> <li>6. Process production documents</li> <li>7. Follow shutdown machining process</li> <li>8. Use hand tools</li> <li>9. Monitor equipment for correct operation</li> <li>10. Identify set up</li> <li>11. Select tools and materials</li> <li>12. Support set up</li> <li>13. Verify set up</li> <li>14. Perform start up</li> </ol>

## **REGISTERED APPRENTICESHIP BRIDGING OPPORTUNITIES**

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The following Registered Apprenticeship is available in this area:

- Machine Repair

## **POST-SECONDARY PATHWAY OPPORTUNITIES**

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There are several post-secondary pathway opportunities in this area. The following is an example.

- Precision Machining Technology Technical Diploma