

CNC FABRICATOR

Levels 1

Learners on this pathway explore the processes of computer numerical code (CNC) fabrication and manufacturing. The pathway presents an overview of the manufacturing processes and tools used for CNC fabrication. The pathway employs one level focused on one area of expertise, using 21 courses that take 18 hours to complete.

The courses cover a variety of metalworking processes, including milling, turning, boring, rolling and extruding. Learners will understand the processes used for metal sheet working and for forming tubes, bars and wires. The courses include knowledge of machines cutting techniques employing lasers, water, abrasives and electrical discharge.

Among the objectives for this pathway, learners will be able to:

- define metalworking and describe the tools used
- define machining and list tools used in the process
- define metal fabricating and explain the processes used
- describe proper equipment used for milling, drilling, boring, turning and grinding
- define bulk metal forming and the tools for shaping, forging and extruding metal

Total # of Modules: 21

Total Hours: 18



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Level 1

Fabrication Processes

- 1.1 Introduction to Metalworking Processes
- 1.2 Introduction to Machining
- 1.3 Introduction to Milling and Drilling
- 1.4 Introduction to Turning and Boring
- 1.5 Introduction to Grinding
- 1.6 Introduction to Abrasive Waterjet Cutting
- 1.7 Introduction to Laser Cutting
- 1.8 Introduction to Electrical Discharge Machining
- 1.9 Introduction to Bulk Metal Forming
- 1.10 Introduction to Rolling
- 1.11 Introduction to Forging
- 1.12 Introduction to Extruding
- 1.13 Introduction to Bar and Wire Drawing
- 1.14 Introduction to Sheet Metal Forming
- 1.15 Introduction to Metal Stamping
- 1.16 Introduction to Metal Spinning
- 1.17 Introduction to Roll Forming
- 1.18 Introduction to Slide Forming
- 1.19 Introduction to Hydroforming
- 1.20 Introduction to Tube Forming
- 1.21 Introduction to Metal Fabricating

