GASTON COLLEGE APPRENTICESHIP 321

MACHINE SET-UP OPERATOR

Duties: Machinists typically do the following:

- Work from blueprints, sketches, or computer-aided design (CAD) and computer-aided manufacturing (CAM) files
- Set up, operate, and disassemble manual, automatic, and computer-numeric-controlled (CNC) machine tools
- Align, secure, and adjust cutting tools and workpieces
- Monitor the feed and speed of machines
- Turn, mill, drill, shape, and grind machine parts to specifications
- Measure, examine, and test completed products for defects
- Smooth the surfaces of parts or products
- Present finished workpieces to customers and make modifications if needed

(See reverse for more information.)

Contact us for more information!
704.922.2313
apprenticeships@gaston.edu

Gaston College
Opportunities For Life
www.gaston.edu

0119

Machinists use machine tools, such as lathes, milling machines, and grinders, to produce precision metal parts. Many machinists must be able to use both manual and CNC machinery. CNC machines control the cutting tool speed and do all necessary cuts to create a part. The machinist determines the cutting path, the speed of the cut, and the feed rate by programming instructions into the CNC machine.

Some machinists repair or make new parts for existing machinery. Because the technology of machining is changing rapidly, workers must learn to operate a wide range of machines. Some newer manufacturing processes use lasers, water jets, and electrified wires to cut the workpiece. Although some of the computer controls are similar to those of other machine tools, machinists must understand the unique capabilities and features of different machines. As engineers create new types of machine tools, machinists must learn new machining properties and techniques.

Quick Facts: Machinists

2016 Median Pay	$41,700 per year $20.75 per hour
On-the-job Training	Long-term on-the-job training
Job Outlook, 2014-24	Increase of 6%

Data obtained from the US Bureau of Labor Statistics, published: October, 2017
https://www.bls.gov/ooh/production/machinists-and-tool-and-die-makers.htm#tab-5