



## YEAR 1

Principles of Precision Machining teaches students shop safety, industrial terminology, tools and machine tooling, measurement, and layout. In addition, students complete turning, milling, and grinding projects, as well as a mandatory assessment for the National Institute of Metalworking Skills (NIMS) Measurement, Materials and Safety Job Planning, Benchwork, and Layout Certification.

## YEAR 2

Precision Machining Fundamentals builds on lessons from Year One, providing students laboratory experience on the vertical and/or horizontal milling machine. This course also incorporates mandatory assessment for the NIMS Manual Milling Certification.

## YEAR 3

Introduces and instructs the student in all aspects of Computer Numeric Control (CNC) machine operation and setup. The student will set up and operate CNC mills and lathes utilizing set-up, production, in-process inspection, and preventive maintenance methods similar to what the student may experience in the present-day work environment. This course prepares students to take the NIMS Level I CNC operations certification.

## YEAR 4

Career Academy has partnered with many local higher education institutions, regional businesses and community organizations to ensure all programs meet the academic and technical skills required to have successful outcomes in the work force or college.

Some of our partnerships include:

CNC Products, Mack Tool and Engineering, Lippert Components, and Big C Lumber

YEAR  
1

- Principles of Precision Machining
- IDOE Course 7109, 2 Semesters
- Dual Credit: Machine Tool Technology 101 and 106
- Certification: NIMS Measurement, Materials, and Safety

YEAR  
2

- Precision Machining Fundamentals
- IDOE Course 7105, 2 Semesters
- Dual Credit: Machine Tool Technology 102 and 103
- NIMS Milling I

YEAR  
3

- Advanced Precision Machining
- IDOE Course 7107, 2 Semesters
- Dual Credit: Machine Tool Technology 105 and 110
- Certification: NIMS Grinding I

YEAR  
4

- Internship or Senior Exit Project

*Students MUST complete all pathway classes with a 73% or better*

## CAREER OPTIONS

- Automotive Machinists
- CNC Machining
- Designer (CAD CAM)
- Die Makers
- Engineer (Manufacturing)
- Gear Machinists
- Jig Bore Tool Makers
- Maintenance Machinists
- Manual Mill Machinists
- Metal Die Finishers
- Metal Gauge Makers
- Plastic Die Maker Apprentice
- Precision Machinists
- Production Machinists
- Quality Technician
- Tool and Die Makers
- Tool Room Machinists
- Toolmakers

