

Computer Numerical Control (CNC) Operator Manufacturing Technology • 17 unit certificate

Within our apprenticeship program, students can earn a Computer Numerical Control (CNC) operator certificate designed to provide entry-level skills to operate a CNC lathe or milling type machine tool.

Required Course: APP-450 Apprenticeship Work Experience plus Additional 17 units of Required Courses:

ENE-42 SolidWorks I (3 units)

This course is designed to introduce the student to three-dimensional parametric solid modeling with SolidWorks.

DFT/ENE-51 Print Reading (2 units)

Beginning course in the study of blueprints and their interpretation, types of projection, symbols and abbreviations.

MAN-36 General Machine Shop and Theory of Machining (4 units)

An introduction to the basic setup and operating of the lathe, mill, saw, drill press, and grinder. Safety, blueprint reading, measurement, shop math, tool grinding, bench work and layout, cutting concepts, and speed and feed calculations are also included.

MAN/ELE-55 Occupational Safety & Health Administration (OSHA) Standards for General Industry (1 unit)

Covers OSHA policies, procedures and standards as well as safety for general industry and health principles.

MAN-56 CNC Machine Setup & Operation (4 units)

Fundamental skills related to setup and operation of CNC (Computer Numerically Controlled) machine tools.

MAN-57 CNC Program Writing (3 units)

Intro to the manual CNC program writing. This course includes the Cartesian coordinate system, absolute/incremental programming, circular interpolation, cutter radius compensation, canned cycles, and other programming techniques related to CNC machine tools. Students will gain hands-on experience with CNC machine tools.

Professional development courses recommended in the beginning of your program to help students get ready for their career:

- *PDS-818 The Successful Job Search (0 units)
- *GUI-47 Career Exploration and Life Planning

Program Learning Outcomes:

- Demonstrate sufficient proficiency to apply for and obtain entry-level employment in the field of CNC technology
- Create a portfolio of CNC programs created during the program's courses.
- Solve formulas by using unknowns and apply this knowledge to solve problems encountered in technology areas and various fields of machining.

Apprenticeship Program



Computer Numerical Control (CNC) Operator

Tuition FREE

The Apprenticeship program is an Industry-led state certified program, which includes on-the-job training combined with directed education to earn a Certificate in CNC Operator, will be awarded upon completion of the required courses.

Job & Wage Information

Work in the industry while going to school and upon completion of this program, students may be qualified for gainful employment in the following careers:

- Machine Operator
- Production Technician
- Industrial Engineering Technician
- Manufacturing Engineering Technician
- Tool Setter

For current wage and labor data, visit O*NET at :

<https://www.onetonline.org>

- CNC Machine or Lathe Operator
Wage Range*: \$14.95-22.68
2% increase expected in CA 2020-2030; 950 openings annually
More information: <http://bit.ly/MfgTechNC>
- Maintenance Machinery Worker
Wage Range*: \$19.68-31.31
7% increase expected in CA 2020-2030; 870 openings annually
More information: <http://bit.ly/MachMaintNC>

What's Your School?

NORCO COLLEGE
SCHOOL OF
Science, Technology,
Engineering & Mathematics

What type of interests might be a good fit for this career choice?



Realistic

People who have athletic or mechanical ability and prefer to work with objects, machines and tools. Preference for working with things over people.

For more information on careers that fit this category of interests, visit the Career Center in the Center for Student Success.

Visit www.norcocollege.edu/sd/apprenticeship for more information about this program.