

MECHANICS AND MAINTENANCE APPRENTICESHIP TECHNOLOGIES: TRADE WORKER APPRENTICESHIP TECHNOLOGIES, CAREER PATHWAY CERTIFICATE

Program Code: CC.MACHINIST

Trades: Machinist

6000 BOLI-ATD Trades

Registered Apprenticeship in the machinist trades or occupations is a method of career and technical related training leading to certification and journey-level status.

This is a limited-entry program for registered apprentices who are sponsored by individual employers, accepted by a Joint Apprenticeship and Training Committee (JATC) or NW Willamette Trades Apprenticeship and Training Committee (TATC) and registered with the State of Oregon Bureau of Labor & Industries (BOLI).

Clackamas Community College offers three state-wide Apprenticeship degrees and their stackable Certificates of Completion and Career Pathway Certificates of Completion. These parent degrees are: [Electrician Apprenticeship Technologies AAS](#), [Construction Trades General Apprenticeship AAS](#), and [Industrial Mechanics and Maintenance Technology Apprenticeship AAS](#). These degrees do not guarantee licensure.

This is a stackable Career Pathway Certificate for the [Industrial Mechanics and Maintenance Technology Apprenticeship AAS](#).

This program is articulated with Oregon Institute of Technology (OIT), which requires a higher-level math course than is required for the program. Contact an Apprenticeship Advisor at CCC for help with transfer to OIT.

For more information on CCC's apprenticeship programs, visit the [Apprenticeship webpage](#), or contact an Apprenticeship Advisor at 503-594-0959, or apprenticeship.advising@clackamas.edu.

Outcomes

Program Outcomes

Upon successful completion of this program, students should be able to:

Machinery Operation and Maintenance

- demonstrate the functions of trade-specific industrial systems;
- define lubrication processes with trade-specific industrial materials and equipment;
- identify mechanical and/or electrical industrial systems;

- demonstrate the proper care, use and storage of hand and power tools;
- develop machine shops skills in troubleshooting.

Fabrication

- read and interpret trade-specific industrial blueprints;
- perform trade-specific welding applications;
- analyze the properties of materials and how they apply to trade-specific fabricating applications;
- fabricate industrial materials in appropriate trade-specific applications.

Mathematics of the Trade

- calculate elementary algebraic equations and formulas;
- apply appropriate formulas to mathematical situations.

Safety

- demonstrate safe working practices in accordance with state and federal regulations;
- apply standardized OSHA practices to specific trade applications;
- describe procedures for proper removal and disposal of hazardous materials.

Requirements

Code	Title	Credits
APR-104MA	Print Reading	3.00
APR-106MA	Advanced Applied Geometric Dimensioning and Tolerancing for Manufacturing	3.00
APR-111MA	Manual Machining I	4.00
APR-112MA	Manual Machining II	4.00
APR-201MA	CNC I: Set-Up and Operation	4.00
APR-202MA	CNC II: Programming and Operation	4.00
MTH-080	Technical Mathematics II	3.00
Total Credits		25

Careers

6000 Hours BOLI-ATD Trades:

- Machinist¹
- Programmable Logic Controller
- Industrial Mobile Mechanic

¹ Programs offered at Clackamas Community College through NW Willamette TATC