

MAINTENANCE MECHANIC/MILLWRIGHT APPRENTICESHIP

Program Number: 50-423-1

Apprenticeship

Campus: Fond du Lac

This program is **not** eligible for financial aid

About the Program

Maintenance mechanic/millwrights perform tasks related to installation and repair of manufacturing, process and facility related equipment. Both mechanical and electrical skills are applied to preventative and predictive maintenance, equipment repairs and equipment enhancements.

What You'll Learn

Maintenance mechanics and millwrights install, dismantle, or move machinery and heavy equipment according to layout plans, blueprints, or other drawings. They keep machines, mechanical equipment, or the structure of an establishment in repair. Duties may involve pipe-fitting; boiler making; insulating; welding; machining; carpentry; repairing electrical or mechanical equipment; installing, aligning, and balancing new equipment; and repairing buildings, floors, or stairs.

Additional Information

Contact Kim Spartz at (920) 924-3217 or kspartz@morainepark.edu to discuss transfer opportunities.

Journeyworkers can earn a degree customized to their interests with the Technical Studies - Journeyworker Associate of Applied Science degree at Moraine Park Technical College.

If you want to learn more about apprenticeships in Wisconsin, visit <https://dwd.wisconsin.gov/apprenticeship/>.

Application/Admission Information

Students interested in an apprenticeship do not complete standard admissions with Moraine Park.

Interested students/employers should contact the training representative listed below to start the apprentice/employer apprenticeship contract application:

Lavelle Gill, Apprenticeship Training Representative

Phone: (262) 340-1143

Email: almonl.gill@dwd.wisconsin.gov

Learn more at www.wisconsinapprenticeship.org (<https://dwd.wisconsin.gov/apprenticeship/>)

Application Requirements

Applicants should be 18 years of age and submit an apprentice/employer application to the Bureau of Apprenticeship Standards. Applicants must have a high school diploma or equivalent and be physically able to perform required work practices safely.

Students are required to complete First Aid/CPR and Transition to Trainer classes.

Approximate Costs

Tuition

Occupational

- \$152.85 per credit (resident)
- \$229.28 per credit (out-of-state resident)

Associate of Arts/Associate of Science

- \$192.20 per credit (resident)
- \$288.30 per credit (out-of-state resident)

Online students are not charged out-of-state fees.

Student Fees

- \$5.00 minimum per course Material Fee
- \$13.76 per-credit Supplemental Fee for Undergraduate courses
- \$4.50 per term mandatory Student Accident Insurance Fee

Please refer to Tuition & Fee Information (<https://catalog.morainepark.edu/admissions-registration/tuition-fee-information/>) for additional enrollment fee information.

Training Period

The Maintenance Mechanic/Millwright is a 4-year apprenticeship.

Working Conditions

Maintenance mechanics/millwrights require a moderate level of physical strength. They must frequently stand, squat or kneel for long periods and work in cramped or uncomfortable positions. Since much of their work is indoors, maintenance technicians are less exposed to inclement weather than most other trade workers

Maintenance mechanics/millwrights perform tasks to adjust, modify, repair and improve equipment and processes within an industrial environment. They also read blueprints, and install hydraulic and pneumatic equipment and controls. Preventative maintenance, bearing diagnostics, mechanical drives and pump system repairs are additional tasks completed by maintenance mechanics. They also perform machining, welding and other tasks using hand tools, mills and lathes.

For safety, maintenance mechanics/millwrights must understand the risks and hazards when working on industrial equipment. A practical understanding of OSHA is required in addition to referencing and understanding the National Electrical Code designed to protect persons and property from hazards arising from the use of electricity.

Tools and Equipment

Maintenance mechanics/millwrights may use various hand and power tools and stationary equipment such as lathes, drill presses, grinders, welders and saws.

Course Requirements

Course	Title	Credits
Year 1		
423-710	Math and Physics for MMMP Trades	1

423-711	Print Reading for MMMP Trades	1
423-712	Fasteners for MMMP Trades	0.25
423-713	Precision Measurements for MMMP Trades	0.5
423-714	Rigging for MMMP Trades	0.5
Credits		3.25
Year 2		
423-715	Welding for MMMP Trades	0.5
423-716	Metallurgy for MMMP Trades	0.5
423-717	Hydraulics for MMMP Trades	0.75
423-718	Pneumatics and Compressed Air for MMMP Trades	0.75
423-719	Vacuum Systems for MMMP Trades	0.75
423-720	Pipefitting and Valves for MMMP Trades	0.75
423-722	Packings, Seals, Gaskets for MMMP Trades	0.5
423-723	SDS and Adhesives and Sealants for MMMP Trades	0.25
Credits		4.75
Year 3		
423-724	Preventive and Predictive Maintenance for MMMP Trades	1
423-726	Green Awareness for the MMMP Trades	1
423-730	Bearings for the MMMP Trades	1
423-731	Couplings and Alignment for the MMMP Trades	1
423-732	Pumps for the MMMP Trades	2
Credits		6
Year 4		
423-733	Belts, Sheaves, Pulleys and Drives for the MMMP Trades	0.75
423-734	Gears, Gearboxes, Gear Assemblies for the MMMP Trades	0.75
423-735	Mechanical Power Transmission for the MMMP Trades	0.75
423-736	Conveyors for the MMMP Trades	0.25
423-737	Equipment Installation for the MMMP Trades	0.75
423-738	Sheet Metal and Structural Steel Fabrication for the MMMP Trades	0.75
Credits		4
Total Credits		18

Students must take course 47-455-455 Transition to Trainer, Your Role as a Journeyworker (complete in the final year).

Program Outcomes

- Demonstrate proper rigging techniques.
- Select an appropriate power transmission system for a given application.
- Identify suitable pumps for given applications.
- Recommend bearings for given applications.
- Plan for fabricating parts and assemblies according to specifications.
- Apply operational and troubleshooting principles to fluid power systems.
- Layout an equipment installation plan.
- Plan maintenance schedules for a given system.

Career Opportunities

Working in industrial and manufacturing settings, job titles include:

- Maintenance Technician
- Maintenance Mechanic
- Millwright
- Industrial Mechanic
- Maintenance Supervisor