



Maintenance Mechanic/Millwright Apprentice (50-423-1)

Effective 2025/2026

Program Description

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.

Program Learning Outcomes

Graduates will be able to:

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

Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

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| • Communication Competence | • Critical Thinking and Problem Solving |
| • Professionalism and Career Management | • Teamwork and Collaboration |
| • Cultural Competence | • Technology Competence |

Get Started as an Apprentice

1. You should apply directly to employers, and entry requirement vary by employer.
2. If you need assistance finding an employer who will take you on as an apprentice, don't hesitate to get in touch with the local WI DWD-BAS Apprenticeship Training Representative at 414.216.8417 to find an employer who has been approved to train apprentices. You can also find apprenticeship employers at <https://dwd.wisconsin.gov/apprenticeship/ra/applicants.htm>.
3. Once your contract is in place with your employer and WI DWD-BAS, Gateway's Apprenticeship department will communicate with you regarding registration, classes and books.
4. You can contact Gateway's Apprenticeship department at apprenticeship@gtc.edu or 262.564.2954.

Graduation Requirements

- *Minimum of 2.0 ("C") or above for all required courses.
- Meet minimum hourly paid related instruction requirements per WI Registered Apprenticeship Contract.

Notes

1. Students must be physically able to perform the job.
2. Students must be 18 years of age and submit official high school, GED, or HSED transcript including a graduation or passing date.
3. Students must complete all courses with a grade of "C" or better.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. The District reserves the right to modify, cancel, or relocate course offerings in response to factors such as low enrollment, resource availability, or other relevant considerations to ensure high-quality educational experiences. Students will be notified in writing and are encouraged to meet with their Academic Advisor to adjust their academic plan.

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The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

Taking courses in the order shown will help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

Pathway to Success

Term	Course	Course Name	Credits	Hours
1	*804-502	Math 1 for Apprentice	1.00	36
1	*421-515	Blueprint Reading I/Metal Trades	1.00	36
1	*462-503	Industrial Mechanic Fundamentals I	1.00	36
1	*462-504	Industrial Mechanic Fundamentals II	1.00	36
2	*442-510	Welding Fundamentals	1.00	36
2	*419-567	Basic Hydraulics Beginning	1.00	36
2	*419-551	Pneumatics Apprentice	1.00	36
2	*419-511	Hydraulic Pumps Apprenticeship	.75	24
2	*420-520	Precision Measurement	.50	12
3	*423-730	Bearings	.75	24
3	*423-565	Principles of Rigging	.50	18
3	*423-716	Metallurgy	1.00	36
3	*423-503	Packings, Seals, Gaskets	.50	16
3	*423-508	Fasteners	.25	8
3	*423-507	Vacuum Systems	.75	20
3	*423-504	Pipefitting and Valves	.75	24
4	*423-724	Preventative & Predictive Maintenance	1.00	36
4	*423-731	Couplings & Alignment	1.00	36
4	*423-501	Equipment Installation	.75	24
4	*423-502	Mechanical Power Transmission	.75	24
4	*423-506	Sheet Metal & Structural Steel Fab	.75	24

Training at a Glance

- Time to complete – Approximately 4 years
 - On the job time – 7424 Hours
 - Related Instruction Time – 578 Hours
 - Additional training – First Aid and CPR certifications; Transition to Trainer
- Consult the Wisconsin Bureau of Apprenticeship Standards website for more information at <https://dwd.wisconsin.gov/apprenticeship/occupations/maintenance-mechanic.htm>

If you need assistance getting started, Gateway's Apprenticeship Department is happy to help.

QUESTIONS?

PLEASE CONTACT:

Gateway Technical College
Apprenticeship Department

262-564-2954

apprenticeship@gtc.edu

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the front of the sheet.

(*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.