

# Mechatronics Technician Apprentice (50-620-1)

## Effective 2026/2027

### Program Description

This occupation requires combined knowledge of electrical, electronic and mechanical systems used in industrial plants. Workers frequently support automation and robotic technologies. Work processes include installing, repairing, and maintaining equipment/devices. Troubleshooting systems involved in manufacturing and process control are critical requirements for workers in these occupations. Workers typically operate and debug, industrial computer and communication systems including PLC's, PCs, and HMI technologies. Workers machine metal and other materials; fabricate parts and weld/join components. Documenting work performed, maintaining accurate records, and working in a collaborative environment are critical interpersonal skills. Employees in some, but not all plants, support facilities, utilities and grounds.

### Program Learning Outcomes

Graduates will be able to:

- 1 Perform work safely.
- 2 Install mechanical equipment.
- 3 Install electrical equipment.
- 4 Maintain mechanical equipment.
- 5 Troubleshoot mechatronic systems.
- 6 Operate machine shop tools and machines.
- 7 Produce precision fabricated parts.
- 8 Maintain automated mechatronic systems.
- 9 Modify devices and systems.
- 10 Maintain documents and records.

### 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:

- 1 Communication Competence
- 2 Critical Thinking and Problem Solving
- 3 Professionalism and Career Management
- 4 Teamwork and Collaboration
- 5 Cultural Competence
- 6 Technology Competence

### Get Started as an Apprentice

- 1 You should apply directly to employers, and entry requirements 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](mailto: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 capable of performing the activities of the job, including equipment/tool use, for course grading. This may include any of these activities for an extended period: standing, sitting, reaching, bending, finger/hand dexterity, and, the use of head, face, eye, ear, hand and foot protection in various dynamic work environments including cramped/small spaces and hot or cold temperatures.
- 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.
- 4 Textbook, supplies and personal protective equipment requirements and sources will be provided by your instructor as well as outlined in the syllabus.
- 5 Virtual instruction will require the students to participate with the computer camera and microphones on when requested by the instructor.

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.

All courses should be taken in the order shown to 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.).

More detailed scheduling information for this program can be found at <https://www.gtc.edu/mechatronics-technician-apprentice>.

Please see your academic advisor for additional information.

Term	Course Number	Course Name	Credits	Hours
1	*620-510	Math Review for Mechatronics	1.00	36
1	*620-511	Mechatronic Principles	2.00	72
1	*620-514	DC Electricity for Mechatronic	1.00	36
2	*620-515	AC Electricity for Mechatronics	1.00	36
2	*620-512	Motors & Motor Controls	2.00	72
2	*620-516	National Electrical Code	1.00	36
3	*620-517	Fluid Power Systems	2.00	72
3	*620-520	Servos and Drives	1.00	36
3	*620-508	Power Transmission Systems	1.00	36
4	*620-513	Machining Concepts	2.00	72
4	*620-521	Intro to Programmable Logic Controllers	2.00	72
5	*620-522	HMI Technologies & PLC Applications	2.00	72
5	*620-518	Introduction to Robotic System	2.00	72
6	*620-519	Introduction to Robotic Integration	3.00	108
6	*620-509	Welding Basics	1.00	36

(\*) Students must achieve a minimum of 2.0 ("C") or above for this major course to meet graduation requirements.

### Training at a Glance

- Time to complete – Approximately 5 years
  - On the job time – 9136 Hours
  - Related Instruction Time – 864 Hours
  - Additional training – Transition to Trainer
- Consult the Wisconsin Bureau of Apprenticeship Standards website for more information at <https://dwd.wisconsin.gov/apprenticeship/occupations/mechatronics-technician.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](mailto:apprenticeship@gtc.edu)