Full-Time Pathway to Success
School of Manufacturing, Engineering, and Information Technology
https://www.gtc.edu/advanced-manufacturing

Advanced Manufacturing Technology (10-664-2)

Associate of Applied Science
Effective 2025/2026

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.).

I-D = iMET Center/days, F=Fall, S=Spring, SU=Summer

Term	Course #	Cr.	Course Title	Requisites (prereq-before/ coreq-with)	I-D
1	890-155	1	Gateway to Success (G2S)		F+
1	*628-109	3	Mechanical Skills for Technicians		F
1	*612-102	3	Intro to Pneumatics & Hydraulics		F
1	*664-100	2	Intro to Industrial Control Systems[2]		F
1	*664-105	2	Intro to Industrial Robots[2]		F
1	*664-110	2	Intro to Mechatronics[2]		F
1	*664-116	2	Intro to Mfg Quality Control Systems		F
2	*620-108	3	Fundamentals of Industrial Controls		S
2	*664-103	3	Motor Controls for Manufacturing		S
2	*664-104	2	Industrial Control System Applications	Coreq: 664-103; 664-118	S
2	*664-112	3	Fundamentals of Machining Processes		S
2	*664-118	3	PLC & HMI Programming		S
2	804-134	3	Mathematical Reasoning[1]	Prereq: 854-760	S+
3	*664-120	2	Intro to Industrial Internet of Things (IIot)[2]		SU
3	801-136	3	English Composition 1[1,2]	Prereq: 831-103 OR 851-757	SU+
3	809-195	3	Economics[1,2]	Prereq: 838-105 OR 851-757	SU+
4	*606-128	2	CAD – Solidworks		F
4	*664-119	3	Advanced Manufacturing Network Systems		F
4	*664-121	2	Vision and Smart Sensors	Prereq: 664-118 OR 605-136; 664-103 OR 664-102	F
4	*664-123	2	Advanced Industrial Robotics	Prereq: 664-105; 664-118	F
4	809-198	3	Psychology, Introduction to[1,2]	Prereq: 838-105 OR 851-757	F+
5	*664-113	3	Leadership for Advanced Manufacturing		S
5	*664-115	2	Interpreting Engineering Drawings	Prereq: 804-134 OR 804-135	S
5	*664-117	2	Materials and Processes	Prereq: 664-100; 664-110; 801-136	S
5	*664-124	3	Integrated Systems Capstone	Prereq: Instructor Consent: 664-118; 664-123	S
5	801-198	3	Speech[2]		S+

Minimum Program Total Credits Required: 65

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.
Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.
= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.
(*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.
(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, Elkhorn or Online.

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Advanced Manufacturing Technology combines mechanical, electronic, and information technology into a single discipline that crosses the traditional boundaries of a skilled technician. Advanced Manufacturing technicians need a broad understanding of mechanical and electrical principles, and the use of data to optimize the manufacturing process through intelligent automation. These industry certifications are embedded in the program: Snap on Hand tool Safety, Snap on Multimeter, OSHA 10, and Starrett Precision Measurement.

Program Learning Outcomes

Graduates will be able to:

1. Apply state and national safety rules to the manufacturing systems environment.
2. Analyze automation within a complex manufacturing system.
3. Manage advanced manufacturing systems for operational efficiency and cost control.
4. Analyze technical specifications for implementation of manufacturing systems, modules, and components.
5. Explore a Proportional Integral Derivative (PID) control system to achieve a desired outcome in a manufacturing outcome.
6. Integrate industrial control systems into manufacturing processes.
7. Apply electronic principles to devices within a complex manufacturing systems.

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:

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

Admission Requirements

1. Students must submit an application and pay $30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

Graduation Requirements

1. Minimum 65 credits with a cumulative GPA of 2.0 or above.
2. *Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or Graduation Requirements.

Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, contact cfpl@gtc.edu.
3. Safety glasses are required in labs. If prescription safety glasses are necessary, please allow a minimum of 90 days before the program start to obtain prescription and glasses.