

AUTOMATED MANUFACTURING ENGINEERING TECHNOLOGY, BS

Bachelor of Science in Automated Manufacturing Engineering Technology (287103BS)

More on the Automated Manufacturing Engineering Technology major (<https://uakron.edu/est/automated-manufacturing-technology/>)

Program Contact

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The student is urged to consult The University of Akron Bulletin and the University College General Education requirements to ensure that all requirements for graduation are met. Students enter the Bachelor of Science AMET program from different associate degree programs and therefore may have different General Education requirements remaining.

Program Information

Graduates of the Automated Manufacturing Engineering Technology degree will possess knowledge in robotics, computer integrated manufacturing, computer numerical control, manufacturing processes, manufacturing operations management, and quality control techniques to enter technician level careers in process and system design, manufacturing operations, maintenance, and technical sales or service.

- The first two years are completed as an AAS degree in Construction Engineering Technology or similarly based program.

Required Bridgework

1. Completion of an associate degree program in engineering, science, or business technology (or related) or the first two years of a bachelor degree program with a minimum grade point average of 2.0.
2. Completed with a minimum grade of "C" 2880:241 Introduction to Quality Assurance or equivalent.
3. Completed with a minimum grade of "C" 2880:110 Manufacturing Processes or equivalent.
4. Completed with a minimum grade of "C" 2880:248 Introduction to CNC and Additive Manufacturing or equivalent.

The following information has official approval of the **Department of Engineering and Science Technology** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family,*

course drops/withdrawals, successfully passing courses, prerequisites, among others. The transfer process is completed through an appointment with your academic advisor.

Requirements Summary

Code	Title	Hours
General Education Requirements (https://bulletin.uakron.edu/undergraduate/general-education/)		
Major Courses for General Education		28
Other Discipline Specific Courses		27
Math and Physical/Natural Science Courses		17
Required Courses		57
Total Hours		129

General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete three tiers of General Education coursework. Tiers I and II provide students with foundational skills and breadth of disciplinary knowledge. Tier III courses require students to integrate knowledge, understand diverse perspectives, and think critically about complex issues. Courses tagged for Tier III may also fulfill major or Disciplinary Area requirements.		
Tier I: Academic Foundations		12
<i>Quantitative Reasoning: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
Tier II: Disciplinary Areas		22
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
Tier III: Tagged Courses		
<i>Select one class from each of the following subcategories:</i>		
Complex Systems		
Critical Thinking		
Domestic Diversity		
Global Diversity		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

Recommended Sequence

3rd Year		Hours
Fall Semester		
2030:255	Technical Calculus I	3
2870:348	CNC Programming I (Sch. Lab)	3
2860:370	Survey of Electronics I ¹	3
2880:230	3-D Modeling & Design (Lecture) ²	3
Humanities Requirement		
Select one of the following:		4
3400:210	Humanities in the Western Tradition from Ancient Times to 1500	

3400:221	Humanities in the World since 1300	
	Hours	16
Spring Semester		
2820:111	Introductory Chemistry ¹	3
2870:301	Computer Control of Automated Systems ²	3
2870:311	Facilities Planning ²	3
2920:310	Economics of Technology	3
2870:332	Management of Technology Based Operations	3
	Select one of the following:	3
3300:252	Shakespeare & His World	
3600:101	Introduction to Philosophy	
	Arts or Humanities Requirement	
	Hours	18
4th Year		
Fall Semester		
2920:101	Introduction to Mechanical Design ¹	3
2870:470	Simulation of Manufacturing Systems ¹	3
2870:448	CNC Programming II ¹	3
2920:370	Plastics Design & Process ¹	3
2870:441	Advanced Quality Practices ¹	3
	Select one of the following:	3
7100:210	Visual Arts Awareness	
7500:201	Exploring Music: Bach to Rock	
7900:200	Viewing Dance	
	Arts Requirement	
	Hours	18
Spring Semester		
2870:480	Automated Production ²	3
2870:490	Manufacturing Project ²	2
2920:347	Production Machinery & Processes ²	3
	Technical Elective ³	3
	Technical Elective ³	3
	Complex Systems Tag Requirement	3
	Hours	17
	Total Hours	69

¹ Traditionally Fall only.

² Traditionally Spring only.

³ Technical Electives (see table below).

Policy Alert: By the end of your first 48 credit hours attempted, you must have completed your required General Education English, Mathematics, and Communications (Speech) requirements.

You must have a minimum cumulative GPA of a 2.0 to graduate with this degree.

Technical Electives

Code	Title	Hours
2030:356	Technical Calculus II	3
2040:247	Survey of Basic Economics	3
2040:251	Human Behavior at Work	3
2420:202	Elements of Human Resource Management	3

2420:211	Essentials of Financial Accounting	3
2420:212	Basic Accounting II	3
2420:280	Essentials of Business Law	3
2820:310	Programming for Technologists	2
2920:142	Introduction to Material Technology	3
2920:251	Fluid Power	2
2920:252	Thermo-Fluids Laboratory	1
2920:470	Plastics Processing & Testing	2
2990:125	Statics	3
3470:261	Introductory Statistics I	2
3470:262	Introductory Statistics II	2
2520:101	Essentials of Marketing Technology	3

¹ Students completing NTMA Journeyman's Machinist Program receive block credit for these courses. Students who have not completed the entire program or who have completed the program prior to 1/1/96, see an advisor.

² Traditionally Fall only.

³ Traditionally Spring only.

⁴ Please note that for Option #2, you may take a second 3-credit course by combining the 2-credit technical elective with the 1-credit open elective.

⁵ Technical Electives (see Requirements tab for list).

Policy Alert: By the end of your first 48 credit hours attempted, you must have completed your required General Education English, Mathematics, and Communications (Speech) requirements.

You must have a minimum cumulative GPA of a 2.0 to graduate with this degree.