

Advanced Manufacturing Technology

Advanced Manufacturing Technology Bachelor in Applied Science

Mission Statement

The Advanced Manufacturing Technology program offers students an affordable option to advance their technical knowledge and competency while also providing local employers with the advanced manufacturing talent they need to grow and prosper in the region.

Entrance Requirements:

Acceptance to the college does not guarantee immediate acceptance into the Bachelor of Applied Science, Advanced Manufacturing Technology program. Prior to consideration of acceptance, the following must be met:

- Applicants must have completed an associate degree in one of these five majors, or a comparable program of study:
 - Mechatronics Technology (formerly Industrial Maintenance Technology)
 - Machine Tool Technology
 - Computer Numerical Control (CNC) Programming and Operations
 - Mechanical Engineering Technology
 - Electronics Engineering Technology
- Applicants must have maintained a cumulative GPA of 2.5 from the awarding college or university.
- Applicants must have completed ENG 101 (English Composition I) or ENG 165 (Professional Communications).
- Applicants must have completed MAT 110 (College Algebra) or MAT 120 (Probability and Statistics).
- Applicants may apply for prior learning credit for individual courses, according to GTC policy.
- Applicants must complete the online college orientation and then attend a PASS session.
- Applicants must complete and submit the program application form.

Students will be accepted in the order in which all the above are complete.

Type of Program:

Evening

- The Applied Baccalaureate in Advanced Manufacturing Technology is an intensive, hands-on, project-based degree program designed to meet the needs of industry by preparing graduates for technical and managerial leadership positions in our growing global manufacturing economy.
- This program requires a minimum grade of "C" in all concentration courses.

Recommended Program Schedule

First Semester- Fall

#EGR	130	Engineering Technology Applications & Programming	or	
#ENG	102	English Composition II		3.0
*MAT	120	Probability & Statistics		
		or		
*MAT	110	College Algebra		3.0
MFG	300	Manufacturing Processes and Application		3.0
MFG	310	Manufacturing Quality		3.0
MFG	321	Advanced Manufacturing Lab I		2.0

Second Semester - Spring

**ENG	101	English Composition I		3.0
		^Natural Science w/Lab		4.0
MFG	340	Computer-Aided Design for Manufacturing Engineering		3.0
MFG	322	Advanced Manufacturing Lab II		2.0
MFG	330	Manufacturing Project Management		3.0

Third Semester - Summer

MFG	323	Advanced Manufacturing Lab III	2.0
MFG	350	Production Process Planning	3.0
MFG	360	Leadership in Manufacturing	3.0
		****General Education Elective	3.0
		or	
***ENG	102	English Composition II	

Fourth Semester - Fall

		****General Education Elective	3.0
		or	
****MAT	120	Probability & Statistics	
		+Manufacturing Technology Elective	4.0
MFG	370	Principles of Lean Manufacturing	3.0
MFG	481	Industry Capstone Project I	2.0
MFG	491	Advanced Manufacturing Senior Seminar I	2.0

Fifth Semester - Spring

MFG	482	Industry Capstone Project II	2.0
MFG	492	Advanced Manufacturing Senior Seminar II	2.0
		+Manufacturing Technology Elective	4.0
		++Operations Management Elective	3.0
		++Operations Management Elective	3.0

Sixth Semester - Summer

		General Education Elective	3.0
		General Education Elective	3.0

Total Required Credit Hours:**125.0**

EGR 130 is required for CNC/MEC/MTT students. EGR 130 is a requirement in the MET and EET programs; therefore, MET and EET students will take ENG 102.

* MAT 120 will be required for EET students. CNC/MEC/MTT students will need to complete MAT 110. MET students will complete MAT 110 during the AAS.MET program.

**ENG 101 will be required for CNC/MEC/MTT students, unless completed during the AAS program.

***ENG 102 will be required for CNC/MEC/MTT students. A general education elective is required for MET and EET students.

****MAT 120 is required for CNC/MEC/MTT students. A general education elective is required for MET and EET students.

^Natural Science is required for CNC/MEC/MTT students. MET and EET students will have met this requirement during the AAS program.

+ Manufacturing Technology electives may include:

- MFG 401 Advanced Metrology
- MFG 402 Additive Manufacturing
- MFG 403 Robotics & Automated Controls III
- MFG 404 Programmable Logic Controllers IV

A minimum of two manufacturing technology electives is required.

++ Operations Management electives may include:

- MFG 311 Work Design, Ergonomics and Safety
- MFG 312 Manufacturing Enterprise Resource Management
- MFG 313 Strategic Sourcing and Procurement
- MFG 314 Finance for Manufacturing

A minimum of two operations management electives is required.