

# TRANSFER ARTICULATION AGREEMENT

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AMENDMENT (2022)

**Quinsigamond Community College**

**and**

**Fitchburg State University**

**Manufacturing Technology**

**Associate in Science**

**to**

**Engineering Technology - Manufacturing Engineering Technology**

**Bachelor of Science**

## **Statement of Purpose**

The purpose of this document, pursuant to the existing articulation agreement, is to serve as written notice and approval of curricular changes in the Fitchburg State University Engineering Technology - Manufacturing Engineering Technology program.

## **Amended Items**

Two courses in the Fitchburg State University Engineering Technology - Manufacturing Engineering Technology program are now under different discipline codes: ENGT 3030 MEP and HVAC Systems is now under CMGT 3030 and ENGT 3035 OSHA: Safety & Risk Management is now under CMGT 3035. Also, effective with the Fall 2022 semester, transfer students will follow a new general education program at Fitchburg State University. These changes will result in less credits for students to complete after transferring.

Effective with the 2022-2023 catalog, the QCC Manufacturing curriculum retires MNT 217 Process Automation & Robotics and replaces it with ELM 260 Industrial Robotics. Fitchburg State University will now accept the combination of MNT 215 and ELM 260 to transfer as ENGT 3110 Robotics & Mechatronics plus an ENGT Transfer Elective.

The attached curriculum grid presents the revised curricula, acceptance equivalency and courses left to complete.

This course revision does not affect pre-established terms and conditions of the existing articulation agreement. All provisions, previously agreed to by the two institutions, remain in force. Refer to the 2020 articulation agreement document for details and conditions.

Fitchburg State University and Quinsigamond Community College agree that this Amendment becomes effective on July 1, 2022 and is applicable to eligible students in the next semester of enrollment.

**Approvals**

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*Heather Thomas*

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Heather Thomas  
MassTransfer Coordinator

**Quinsigamond Community College and Fitchburg State University**

**QCC Manufacturing Technology**

to

**Engineering Technology – Manufacturing Engineering Technology Program Articulation Table**

<b>QCC Course</b>	<b>Course #</b>	<b>Credits</b>	<b>Fitchburg State Course</b>	<b>Course #</b>	<b>Credits</b>
Introduction to Microcomputer Applications	CIS 111	3	Software Appl in ET	ENGT 1040	3
College Mathematics I: Pre-Calculus <b>or</b> Mathematics for Technicians I <b>Recommend MAT 147 Mathematics for Technicians I</b>	MAT 123 <b>or</b> MAT 147	3-4	<b>Substitute MAT 147 for Pre-Calculus</b>	MATH 1300	4
Manufacturing Safety	MNT 100	3	OSHA: Safety & Risk Management	CMGT 3035	3
Mechanical CAD I	MNT 101	3	Transfer Elective	ENGT 1990	3
Basic Machine Operation	MNT 108	3	Transfer Elective	ENGT 1990	3
<b>Semester 2</b>					
Composition I	ENG 101	3	Writing I	ENGL 1100	3
College Mathematics II: Trigonometry <b>or</b> Mathematics for Technicians II <b>Recommend MAT 148 Mathematics for Technicians II</b>	MAT 124 <b>or</b> MAT 148	3-4	<b>Substitute MAT 148 for Applied Statistics + MATH elective</b>	MATH 1700	3 + 1
Quality	MNT 106	3	Materials Testing	ENGT 2030	3
Manufacturing Materials and Processes	MNT 110	3	Engineering Design Fab I	ENGT 3025	3
Maintenance and Instrumentation in Manufacturing	MNT 115	3	MEP & HVAC Systems	CMGT 3030	3
<b>Semester 3</b>					
Pre Cooperative Education Seminar	CPS 298	0			
Composition II <b>or</b> Technical Writing	ENG 102 <b>or</b> ENG 105	3	<b>Recommend ENG 102 = Writing II</b>	ENGL 1200	3
Solid Modeling	MNT 103	3	Engineering Graphics	ENGT 1020	3
CNC Programming	MNT 210	4	Engineering Design Fab II + ENGT elective	ENGT 3026	4
Physics I	PHY 101	4	General Physics I	PHYS 2300	4
<b>Semester 4</b>					
Computer-Aided Manufacturing + Industrial Robotics	MNT 215 + ELM 260	4 + 4	Robotics & Mechatronics + ENGT elective	ENGT 3110	4 + 4
Manufacturing Capstone Project + Lean Manufacturing and Six Sigma	MNT 216 + MNT 218	4 + 3	Quality Concepts & Lean Six Sigma + ENGT elective	ENGT 4000	4 + 3
Cooperative Work Experience & Seminar	MNT 299	3	Engineering Project Mgmt	ENGT 4700	3
Physics II	PHY 102	4	General Physics II	PHYS 2400	4
Total credits		65-67			67

### Courses left to complete at Fitchburg State University

Course #	Course Title	Credits	Comments
	<b>Courses in Major</b>		
ENGT 1000	Electric Systems & Circuits	3	
ENGT 1050	Tech Analysis	3	
ENGT 2000	Fluid Mechanics & Thermodynamics Lab	3	
ENGT 2020	Statics & Dynamics	3	
ENGT 2025	Strength of Materials	3	
ENGT 3000	Energy & Sustainable Practice	3	
ENGT 4093	Engineering Technology Capstone	3	Seeking approval through governance to cover the IHIP requirement.
ENGT 3040	Metrology	4	
ENGT 3041	Manufacturing Process & Systems	3	
ENGT 3042	Enterprise Resource Plan System	4	
ENGT 4025	Industrial System Automation	4	
	<b>Major Specific Liberal Arts &amp; Science Courses</b>		
CHEM 1300	General Chemistry I (SI)	4	
ECON 1100	Macroeconomics (PL)	3	
MATH 1300	Precalculus	(0-4)	Covered by MAT 147 or both MAT 123 & 124
MATH 1700	Applied Statistics (QR)	(0-3)	Covered by MAT 148 at QCC
MATH 2300	Calculus I (QR)	4	Course is replacing MATH 2100 Technical Calculus, pending approval through governance.
	<b>General Education Courses</b>		
ENGL 1200	Writing II	(0-3)	Covered by ENG 102 at QCC
	World Languages, Speaking and Listening (WS)	3	
	Exploration course	3	
	Integrative High Impact Practice (IHIP)	0-3	Will be covered by ENGT 4093 pending approval.
Total credits		53	As little as 53 credits left to complete if students follow agreement.