

MANUFACTURING TECHNOLOGY, ASSOCIATE IN APPLIED SCIENCE DEGREE

NMC Code 584

The Manufacturing Technology program is designed to provide a multi-disciplined technical background in fields for which NMC does not offer a specific program. For instance, students interested in pursuing careers in advanced manufacturing or welding may enroll in the Manufacturing Technology program and design a model schedule that emphasizes their major area of interest. This program has the flexibility to match the student's interest with the skills necessary for job entry.

Students, with assistance from an advisor, will select a major area of technical emphasis. These technical courses plus supporting courses from other disciplines comprise the Manufacturing Technology program requirements.

Each student's proposed Manufacturing Technology program must be approved by a committee consisting of the appropriate department head, the academic chair, and the registrar.

Requirements

Major Requirements

Course	Title	Credits
General Education Requirements		
ENG 111	English Composition	4
Select one of the following:		3-4
BUS 231	Professional Communications	
ENG 112	English Composition ¹	
ENG 220	Technical Writing	
MFG 111	Math for Manufacturing	3
Any Group 1 Humanities course		3
Math Competency ²		
Any Group 1 Science lecture/lab course		4
Any Group 1 Social Science course		3
Occupational Specialty Requirements		
Complete any combination of the Occupational Specialty Requirements to equal 39 credits		39
Electives		
CAR 100	Introductory Craft Skills	
Select any courses from Group 1 and/or Group 2		4-9
Total Credits		63-69

1
Students intending to transfer to another college or university should take ENG 112 English Composition.

2
Placement into MTH 111 Intermediate Algebra *or* higher, *or* completion of MTH 100 Quantitative Literacy

Occupational Specialty Requirements

Course	Title	Credits
DD 101	Print Reading and Sketching (Fall Only)	3
DD 110	Basic Metallurgy	3
DD 160	Tolerancing and GD&T	3
DD 170	CADD/Computer Modeling	4
MFG 104	Fluid Power	3
MFG 113	Machining I	3
MFG 114	Machining II	3
MFG 203	Manuf/Engineering Processes	3
MFG 217	CNC Operations - Lathe	4
MFG 219	CNC Mill Operations	4
MFG 290	Manufacturing Tech Internship	3
ELE 101	Introduction to Electrical	3
ELE 105	Beg Residential Electrical	3
EET 102	Intro to Engineering Tech	2
EET 103	Electrical Studies I	3
EET 161	Fundamentals of Light & Lasers	4
EET 204	Electrical Studies II	3
EET 221	Industrial Controls	3
EET 232	Programmable Logic Controllers	3
EET 233	PLC Applications I	3
EET 234	PLC Applications II	3
WPT 111	Welding Theory I	3
WPT 112	Welding Lab I	4
WPT 113	Welding Theory II	3
WPT 114	Welding Lab II	4
WPT 161	Welding Qualification Prep	3
WPT 211	Welding Fabrication I	3
WPT 212	Welding Fabrication II	3
WPT 213	Weld Quality Testing	3
WPT 260	Intro to Welding Automation	3
Total Credits		95

Course Sequence Guide

Course	Title	Credits
Year 1		
Fall		
DD 101	Print Reading and Sketching	3
ENG 111	English Composition	4
Occupational Specialty Requirements		7
Credits		14
Spring		
Occupational Specialty Requirements		18
Credits		18
Year 2		
Fall		
MTH 100	Quantitative Literacy	4
Humanities: Any Group 1 course		3
Social Sciences: Any Group 1 course		3
Occupational Specialty Requirements		7
Credits		17

Spring

Select one of the following:	3-4
ENG 112 English Composition	
ENG 220 Technical Writing	
BUS 231 Professional Communications	
Science: Any Group 1 course with a lab	4
Electives: Any Group 1 and/or Group 2	4
Occupational Specialty Requirements	3
Credits	14-15
Total Credits	63-64

Note: Occupational Specialty Requirements are listed below. However, other Technical elective courses may be substituted by an academic advisor to fulfill the Occupational Specialty requirements.

The responsibility for determining the transferability of this degree and courses to another institution is the sole responsibility of the student.

Occupational Specialty Requirements

Course	Title	Credits
DD 101	Print Reading and Sketching (Fall Only)	3
DD 110	Basic Metallurgy	3
DD 160	Tolerancing and GD&T	3
DD 170	CADD/Computer Modeling	4
MFG 203	Manuf/Engineering Processes	3
MFG 104	Fluid Power	3
MFG 111	Math for Manufacturing	3
MFG 113	Machining I	3
MFG 114	Machining II	3
MFG 217	CNC Operations - Lathe	4
MFG 219	CNC Mill Operations	4
MFG 290	Manufacturing Tech Internship	3
Total Credits		39