

Manufacturing Technology

Certificate

DIVISION OF SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS

This is a 12-month, three semester long fast track program that offers a stackable certificate in Advanced Manufacturing. The certificate program is designed to provide students with other pathways in the future, namely an associate degree at a community college or for any student already holding a Bachelor's degree, a graduate degree at a university in advanced manufacturing.

Through the program, students develop skills necessary in today's advanced manufacturing industry through completing relevant course WORK, projects and participating in an Internship.

Graduates may seek positions as detailers, drafters, CAD operators and CNC programmers, and QA/QC Technicians.

Upon successful completion, the Certificate in [Manufacturing Technology](#) is awarded.

PROGRAM FOOTNOTES

We recommend 10-hours of OSHA training. Students should select program electives based on manufacturing industry concentration that is of interest to them.

Students participating in internships and Co-op will need to register for MN 201.

Coding Electives:

CS 101A Making it Happen with Code, CS 101B Making it Happen with Artifacts, CS 101C Making it Happen with Robots, CS 101D Making it Happen with Data, ET 111 iCREAT, MN 125 Engineering Computation with Application Software

Program Electives:

Engineering Design:

EL101 Fundamentals of Electronics, MN 121 Mechanical Detailing, MN 135 Engineering Design with CADD II, MN 140 Project Management, MN 251 Electro-Mechanical Design, MN 261 Animation Materials 3D Modeling, MN 271 Project Design, MN 272 Designing Plastic Parts

Computer Science:

CS 108 Web Page Development I, CS 109 Web Page Development II, CS 126 Digital Imaging, CS 140 Introduction to Multimedia, CS 176 Web Design

Business:

BU 100 Introduction to Business, AC 101 Financial Accounting, MG 101 Principles of Management, MK 103 Principles of Marketing, MK 213 Principles of Sales, MG 210 Entrepreneurship, OA 210 Business Communications

COURSE	COURSE TITLE	CREDITS
	<i>Semester 1</i>	
MN 130	Engineering Design with CAD I	4
MN 131 A	Manufacturing Technology Fundamentals	1
MN 131 B	Geometric Dimensioning and Tolerancing	1
MN 131 C	Statistical Process Control and Quality Assurance	1
MN 100	Career Readiness and e-Portfolio	1
	Coding Elective(s)	4
	credits:	12
	<i>Semester 2</i>	
MN 205	Supply Chain Management	4
MN 132 A	Reverse Engineering, 3D Scanning and 3D Printing	1
MN 132 B	Numerical Control Machining	2
MN 132 C	Sustainability and Lifecycle Management	1
MN 201	CO-OP Dialogue (Optional)*	1
	Program Elective(s)	4
	credits:	12/13
	Total Credits:	24/25

*Students are encouraged to seek and participate in relevant internships and are responsible for finding internship and Co-op opportunities.

Manufacturing:

MN 133 A New Product Development, MN 133 B Lean Six Sigma Fundamentals

Biology:

BI 101 General Biology I w/ Lab