

Manufacturing Technology

Certificate Requirements

The program is designed to be an intermediate recognition step for individuals working towards their Manufacturing and Technology associate degree. All course work in the certificate will apply to the corresponding Associate in Applied Science degree. Upon completion of the prescribed courses, the college awards a certificate.

Prior to taking courses, the student is to meet with the advisor and develop a plan for satisfying program requirements.

To be eligible for a certificate students must:

- Complete the following courses.
- Be eligible for ENG 101 and make an appropriate score on the Reading WorkKeys test.
- Be eligible for MTH 100 and make an appropriate score on the Math WorkKeys test .
- Have a minimum 2.00 grade point average in Jefferson State courses.

Courses required for:

- ***Manufacturing and Technology Certificate***

Industrial Technology Option (STC C124)

Tool and Die Maintenance Technology Option (STC C157)

Biomedical Equipment Technology Option (STC C036)

Automated Manufacturing Option (STC C029)

Electronics Option (STC C067)

Computer Aided Drafting/Design Option (STC C055)

Telecommunications (Outside Plant Design) Option (STC C206)

Industrial Technology Option

Course	Title	Sem Hrs 26
ATM 181W	Special Topics, Welding Basics	3
		3
ATM 220	Advanced Motor Drives	3
ELM 200	Electric Circuits I	4
ELM 210	Fluid Power I	3
ELM 214	Pumps and Piping Systems	3
MET 190	Mechanical Tools I	3
MET 193	Introduction to Robotics	3
		26
MET 220	Mechanical Systems I	
	Total Credit Hours	

Tool & Die Maintenance Technology Option

Course	Title	Sem Hrs
ATM 181D	Special Topics, Basic Die Construction	3
ATM 181W	Special Topics, Welding Basics	3
DDT 115	Blue Print Reading for Machinists	3
MET 201	Basic CADD	3
MET 192	Machinery's Handbook Functions	4
MET 237	Inspection Principles	4
MET 190	Mechanical Tools I	4
MET 191	Mechanical Tools II	4
	Total Credit Hours	26

Biomedical Equipment Technology Option

Course	Title	Sem Hrs
		26
ELM 200	Basic Electricity DC	3
ELM 201S	Basic Electricity AC	3
BET 211	Electronic Systems I	3
ELM 202	Digital Circuits I	3
BET 222	Medical Communications Systems	3
ELM 205	Electronics I	3
ELM 206S	Electronics II	3
BET 240	Clinical On-Site Study	2
BET 241	The Law and Legal Issues in Biomed	26
Total Credit Hours		

Automated Manufacturing Option

Course	Title	Sem Hrs
ATM 220	Advanced Motor Drives	3
ELM 200	Electric Circuits I	3
ELM 215	Industrial Controls I	4
ATM 211	Programmable Logic Controllers I	3
ATM 212	Programmable Logic Controllers II	3
DDT 114	Industrial Blueprint Reading	3
MET 193	Introduction to Robotics	4
ATM 231	Robotics Project	26
Total Credit Hours		

Electronics Option

Course	Title	Sem Hrs
ATM 211 Controllers I	Programmable Logic	3
ELM 200	Electric Circuits I	3
ELM 201S	Electric Circuits II	3
ELM 215	Industrial Controls	4
MET 193 Robotics	Introduction to	4
ATM 231	Robotics Project	3
ATM 220 Drives	Advanced Motor	3
DDT 114 Reading	Industrial Blueprint	26
Total Credit Hours		

Computer Aided Drafting/Design Option

Course	Title	Sem Hrs
		26
ATM 181W	SpecialTopics, Welding Basics	3
		3
ATM 211	Programmable Logic Controllers	3
		3
MET 220	Mechanical Systems I	3
DDT 114	Industrial Blueprint Reading	3
		3
MET 201	Basic CAD	3
		3
MET 202	Advanced CAD	3
		3
MET 204	Basic Computer Aided Modeling	2
		2
MET 211	Advanced Computer Aided Modeling	26
MET 239	Geometric Dimensioning and Tolerances	
Total Credit Hours		

Telecommunications (Outside Plant Design) Option

Course	Title	Sem Hrs
MTH 100 Algebra3	Intermediate College	3
ELM 190	Emerging Tech, History & Basics of Telecom	4 3
ELM 200	Electric Circuits I	3
DDT 114 Reading	Industrial Blueprint	3
ELM 222 Design	Telecommunications	3 3
ELM 223	Engineering Aerial, Buried & Underground Plant	4
ELM 225 Systems	Digital Carrier	26
MET 190	Mechanical Tools I	
Total Credit Hours		
