

INDUSTRIAL TECHNOLOGY

INDUSTRIAL TECHNOLOGY A.A.S.

Program Code: E.MFG.AAS

Associate in Applied Science (A.A.S.)

Graduation requirement — 70–72 semester hours

The Industrial Technology program prepares high school students and community college students for careers in manufacturing. The program offers students opportunities to learn science, math, technology, and communications in real-life settings.

Program Notes*

- Prior to enrolling in MFT 151, students must complete a minimum of 12 hours of curriculum and MFT 131 or approval of the department chair or program director.
- General education electives include mathematics and at least one elective from the following categories: communications, social/behavioral sciences, humanities/fine arts, physical/life sciences.

Suggested Full-time Sequence

FALL	SPRING	SUMMER
1st Semester	2nd Semester	3rd Semester
MFT 121	MFT 127	MFT 151
MFT 131	CAD 113	MFT 152
CAD 124	CAD 121	
MAT 131	ENG 101	
WLD 111	Gen Ed elec	

FALL	SPRING
4th Semester	5th Semester
MFT 110	MFT 113
MFT 210	MFT 128
ENG 102 or COM 103	ELT 150
or COM 200	Concentration course
Concentration course	Concentration course
Concentration course	Gen Ed elec

Required Program Courses (45 hours) Cr. Hrs.

MFT 110	Mechanical Assemblies.	3
MFT 113	Introduction to Hydraulics and Pneumatics.	3
MFT 121	Basic Machine Processes.	3
MFT 127	Introduction to CNC Programming — Turning and Milling.	4
MFT 128	Quality Assurance.	3
MFT 131	Introduction to Manufacturing.	3
MFT 151*	Manufacturing Work Experience I.	3
MFT 152*	Manufacturing Work Experience II.	3
MFT 210	Industrial Safety.	3
CAD 113	Computer-Aided Machine Design I.	4
CAD 121	Materials for Industry.	3
CAD 124	Introduction to AutoCAD.	3
ELT 150	Introduction to Electricity and Electronics.	3
WLD 111	Introduction to Welding.	4

Required General Education Courses (16 hours)

ENG 101	Composition I.	3
ENG 102	Composition II	
or COM 103	Introduction to Public Speaking	
or COM 200	Leadership and Small Group Communication.	3
MAT 131	Applied Mathematics.	4
	General Education electives*.	6

Electives (9–11 hours)

The remaining 9–11 hours of required technical training should be chosen from one of the three areas of concentration. Courses may be selected to reflect the needs of customized concentrations with the approval of department chair or program director.

AREA OF CONCENTRATION Cr. Hrs

Choose at least the indicated number of hours from one of the following concentrations.

Machine Tools — CNC Programming (10 hours)

Program code: E.MFG.AAS.MCT

CAD 122	Computer-Aided Machine Design II.	4
DRT 119	Blueprint Reading and Technical Drawing.	3
MFT 122	Intermediate Machine Processes.	3
MFT 125	Principles and Processes of Modern Manufacturing.	3
MFT 138	Intermediate CNC Programming — Turning and Milling.	4
MFT 211	Advanced Machining Processes and Inspection Practices.	4
MFT 238	Advanced CNC Programming — Turning and Milling.	4

Industrial Maintenance/Automation (9 hours)

Program code: E.MFG.AAS.IMA

ELT 111	Computer Applications for Technicians.	3
ELT 131	Residential Wiring.	3
ELT 134	Motors, Controls, and Drives.	3
ELT 171	Analog Control Systems.	3
ELT 179	Industrial Controls.	3
ELT 231	Programmable Controllers.	3
ELT 292	Process Control.	3
MFT 117	Pumps, Compressors, and Vacuum Systems.	3

Welding (11 hours)

Program code: E.MFG.AAS.WLD

PFT 117	Basic Pipefitting and Welding.	3
WLD 112	Gas Metal Arc Welding.	2
WLD 113	Gas Tungsten Arc Welding.	2
WLD 212	Advanced Gas Metal Arc Welding.	2
WLD 213	Advanced Gas Tungsten Arc Welding.	2
WLD 216	Welding Certification.	4

Total Semester Credit Hours

70–72