

A.A.S. in Technical Studies – Industrial Manufacturing (47.9999)

Overview

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Program Description

The Industrial Manufacturing Technology (IMFG) program provides students with a broad range of mechanical, electrical, and electronic skills. Students are provided with a learner-centered curriculum based on integrated academic and technical content, employability skills, along with work-based learning opportunities that enable them to connect what they are learning with real-live work scenarios. The program is closely aligned with the needs of employers, industry, and labor.

Graduates who earn credentials in this program work in various industries to make or process raw materials into finished products using industrial machines.

Students must maintain a 2.0 grade point average and complete all required courses to graduate from this program. Completion time depends on course load, course withdrawals, and repeat courses. The program takes approximately four semesters to complete based on full-time status (15+ hours per semester).

Student Learning Outcomes

1. Demonstrate an understanding of functional and structural overviews of processes to include plant safety and quality in the manufacturing environment.
2. Use and operate safely hand tools, power tools, hydraulic systems, and pneumatic systems.
3. Explain the automation components of manufacturing.

Diploma

AAS – Technical Studies – Industrial Manufacturing

Exit Points

TD - Industrial Manufacturing (15.0613)

CTC – Manufacturing Fundamentals (15.0613)

CTS - Certification for Manufacturing (C4M) (15.0613)

CTS – Industrial Manufacturing (15.0613)

CTS – Industrial Electronics Technician (15.0613)

Program Curriculum

Curriculum

Course No.	Course Title	Lecture	Lab	Total Credit Hrs.	Total Clock Hrs.
	CORE COURSES:				
ORNT 1000	Freshman Seminar	1	0	1	15
IMFG 1100	Introduction to Manufacturing	3	0	3	45
IMFG 1120	Tools and Equipment Used in Manufacturing	1	3	4	135
IMFG 1200	Automation	1	3	4	120
IMFG 1300	Introduction to Fabrication, Process Technology, & Machining	1	3	4	135
	CTS – Certification for Manufacturing (C4M)			16	450
INDUSTRIAL ELECTRICAL & INSTRUMENTATION CONCENTRATION: (Core + the following)					
IIET 1433	Wiring/Electrical Blueprint Interpretation	2	1	3	90
IMFG 1150	Fluid Power I	0	3	3	90
IMFG 1215	DC/AC Electronics	1	2	3	90
IMFG 1220	Digital Electronics	1	2	3	105
	CTS – INDUSTRIAL ELECTRONICS TECHNICIAN			28	825
IIET 2123	Understanding Programmable Controllers	1	2	3	90
IMFG 1235	Motor Controls	0	3	3	105
IMFG 1260	Introduction to Industrial Networking	1	2	3	90
IMFG 2100	Process Measurements	1	2	3	90

IMFG 2200	Industrial Control Components and Equipment	1	2	3	105
JOBS 2450 OR JOBS 2500	Job Seeking Skills OR Critical Skills in the Workplace	2	0	2	30
	TD –INDUSTRIAL MANUFACTURING- ELECTRICAL & INSTRUMENTATION CONCENTRATION			45	1350
ASSOCIATE OF APPLIED SCIENCE IN TECHNICAL STUDIES					
Industrial Manufacturing: (General Education + TD)					
ENGL 1010	English Composition I	3	0	3	45
MATH XXXX	College Algebra or Contemporary Math	3	0	3	45
	Social Science Elective	3	0	3	45
	Humanities Elective	3	0	3	45
	Natural Science Elective	3	0	3	45
AAS – TECHNICAL STUDIES (CIP 47.9999)				60	1575