INDUSTRIAL MAINTENANCE TECHNOLOGY, AAS

Program Code: AAS.INDMAINTECH

Industrial Maintenance Technology (IMT) is a program that prepares students to succeed as maintenance technicians in industry. IMT graduates perform mechanical and electrical maintenance of manufacturing equipment such as machine tools, automated process equipment and buildings systems to keep production operational. Maintenance technicians study subjects from a wide variety of technical disciplines ranging from welding to industrial electronics to robotics. This is a high-wage, high-demand field that typically attracts talented people who are excellent problem solvers and enjoy challenging work.

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Outcomes

Related Instruction Outcomes

Computation

- 1 course - MTH-050 Technical Mathematics I
- Use appropriate mathematics to solve problems.

Communication

- 1 course - WR-101 Communication Skills: Occupational Writing
- Read actively, think critically, and write purposefully and capably for professional audiences.

Human Relations

- 1 course - COMM-100 Basic Speech Communication
- Engage in ethical communication processes that accomplish goals.

Physical Education/Health/Safety/First Aid

- 3 credits - MFG-107 Industrial Safety & First Aid
- Use effective life skills to improve and maintain mental and physical well-being.

Program Outcomes

Upon successful completion of this program, students should be able to:

- work safely in an industrial environment around machinery, power equipment, heat, chemicals and electricity;
- troubleshoot, install and repair complex electromechanical systems by using knowledge of electrical and mechanical fundamentals, diagnostic instruments, and hand and power tools;
- use knowledge of manufacturing and welding processes to execute the repair and replacement of machine elements;
- effectively apply computer technology to the automation and control of manufacturing and building systems;
- communicate effectively through graphical means including schematics, diagrams, engineering drawing and sketches to determine system functions to effect repairs and improve performance.

Requirements

Course	Title	Credits
First Year		
Fall Term		
IMT-104	Reading Schematics and Symbols	2
MFG-103	Machining for Fabrication & Maintenance	3
MFG-107	Industrial Safety & First Aid	3
MFG-109	Computer Literacy for Technicians	3
MFG-130	Basic Electricity I	3
MTH-050	Technical Mathematics I	4
	Credits	**18**
Winter Term		
COMM-100	Basic Speech Communication	3
EET-139 or IMT-139	Principles of Troubleshooting I or Principles of Troubleshooting I	2
IMT-120	Industrial Machinery I	3
MFG-131	Basic Electricity II	3
MFG-140	Principles of Fluid Power	3
MTH-080	Technical Mathematics II	3
	Credits	**17**
Spring Term		
IMT-110	Preventative Maintenance	2
MFG-132	Basic Electricity III	3
MFG-221	Materials Science	3
MFG-280	Manufacturing Technology/CWE	2
WR-101	Communication Skills: Occupational Writing	3
Electives (p. 2)		3
	Credits	**16**
Second Year		
Fall Term		
EET-239 or IMT-239	Principles of Troubleshooting II or Principles of Troubleshooting II	2
IMT-108	Rigging and Lifting	2
IMT-215	Electromechanical Systems I	2
IMT-220	Industrial Machinery II	3
WLD-150	Welding Processes	4
Electives (p. 2)		3
	Credits	**16**
Winter Term		
CDT-108A or CDT-103	Introduction to SolidWorks or Computer-Aided Drafting I	3
EET-233	Programmable Logic Controllers I	3
IMT-223	Instrumentation & Controls	3
IMT-225	Electromechanical Systems II	2
MFG-209	Programming & Automation for Manufacturing	3
Electives (p. 2)		3
	Credits	**17**
Spring Term		
EET-234	Programmable Logic Controllers II	3
MET-170	Introduction to Manufacturing Processes	3

Course	Title	Credits
MFG-219	Robotics	3
MFG-280	Manufacturing Technology/CWE	2
Electives (p. 2)		3
	Credits	**14**
	Total Credits	**98**

Electives

Any course with a CDT, EET, GIS, MET, MFG, SM, or WLD prefix not included in the program or other technical course with approval.

Careers

Career opportunities include:

- maintenance mechanics
- millwrights
- process technicians
- maintenance machinists
- building engineers
- robotics technicians
- industrial electrician apprentices