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.

For information contact Mike Mattson, 503-594-3322 or mattsonm@clackamas.edu.

Outcomes

Related Instruction Outcomes

Computation

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

Communication

- 1 course - WR-101 Workplace Writing
- Read actively, think critically, and write purposefully and capably for professional audiences.

Human Relations

- 3 credits - See Related Instruction for course list
- 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

First Year		
Fall Term		**Credits**
EET-139	Principles of Troubleshooting I	2
IMT-104	Reading Schematics and Symbols	2
MFG-103	Machining for Fabrication & Maintenance	3
MFG-130	Basic Electricity I	3
MTH-050	Technical Mathematics I [1]	4
	Credits	**14**
Winter Term		
IMT-120	Industrial Machinery I	3
MFG-109	Computer Literacy for Technicians	3
MFG-131	Basic Electricity II	3
MFG-140	Principles of Fluid Power	3
MTH-080	Technical Mathematics II [1]	3
Human Relations requirement		3
	Credits	**18**
Spring Term		
IMT-110	Preventative Maintenance	2
IMT-220	Industrial Machinery II	3
MFG-107	Industrial Safety & First Aid	3
MFG-132	Basic Electricity III	3
MFG-221	Materials Science	3
WR-101	Workplace Writing [1]	4
	Credits	**18**
Second Year		
Fall Term		
EET-215	Technical Mechanics	3
EET-239	Principles of Troubleshooting II	2
IMT-108	Rigging and Lifting	2
WLD-150	Welding Processes	4
Electives (p. 2)		3
	Credits	**14**
Winter Term		
EET-225	Mechatronics I	2
EET-233	Programmable Logic Controllers I	3
IMT-230	Introduction to Heating, Ventilation, and Air Conditioning	3
MFG-209	Programming & Automation for Manufacturing	3
CDT Electives (p. 2)		3
Electives (p. 2)		3
	Credits	**17**
Spring Term		
EET-234	Programmable Logic Controllers II	3
EET-235	Mechatronics II	2
HD-209 or MFG-280	Job Search Skills or Manufacturing Technology/CWE	3-4
IMT-223	Instrumentation & Controls	3
MET-170	Introduction to Manufacturing Processes	3

MFG-219	Robotics	3
	Credits	**17-18**
	Total Credits	**98-99**

[1] Substitute college transfer courses for these courses if you plan to continue your education at a higher education institution. It is recommended that you consult with a faculty advisor or a staff member in Student Services for the transfer requirements of the specific advanced program or school.

CDT Electives

Any CDT course not included in the program.

Electives

Any CDT, EET, GIS, MET, MFG, MTT, SM, or WLD course 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