

2018-2019 TTC Catalog

General Technology - Industrial Maintenance Mechanics

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Associate in Applied Science in General Technology

Industrial Maintenance Mechanics Career Path

65-67 Credit Hours

The General Technology major allows students to select course work necessary to become multiskilled technicians. In addition to completing the college's core curriculum, students also complete course work in at least two technical areas. The following is an example of a career path available. The secondary paths may be substituted for courses in other programs' primary path. Interested students should talk with their advisors.

This program prepares students for a broad range of employment within the industrial maintenance field. The program is designed to develop multi- skilled technicians who install, maintain and repair commercial or industrial machinery in buildings, process plants or manufacturing settings. The mechanical primary path provides a solid foundation in drive systems, hydraulics, pneumatics, pumps, piping systems, and machinery preventive and predictive maintenance. As part of the associate degree program students choose a secondary path in a technical field of study. Students can choose air conditioning and refrigeration, welding, industrial electrical and automation controls or machine tool technology. See your advisor for more information.

Students can earn only one General Technology degree in a single career path.

General Education Core Requirements

ENG 101 English Composition I 3

SPC 205 Public Speaking 3

or

SPC 209 Interpersonal Communication 3

REQ HUM Select from 3
[Humanities](#)

REQ MAT Select from 3
[Mathematics/](#)
[Natural Sciences](#)

REQ SSC Select from 3
[Behavioral/Social](#)
[Sciences](#)

Total: 15

First Year Experience Requirement

EGR 110 Introduction to Computer Environment 3

or

IDS 109 First Year Experience Seminar 3

Total: 3

Primary Technical Specialty Requirements

IMT 105 Mechanical Sketching 2

IMT 124 Pumps 2

IMT 132 Hydraulics 2

IMT 133 Pneumatics 2

IMT 151 Piping Systems 3

IMT 160 Preventive Maintenance 3

IMT 161 Mechanical Power Applications 4

IMT 163 Problem Solving for Mechanical Applications 3

IMT 210 Basic Industrial Skills I 3

IMT 211 Basic Industrial Skills II 3

MGT 101 Principles of Management 3

Total: 30

Secondary Technical Specialty -Welding Option

Select one group of courses from the Secondary Technical Specialty options, for a minimum of 12 credit hours. These courses may be substituted as a group for a different technical subject area approved by your advisor.

WLD 111 Arc Welding I 4

WLD 118 Gas Metal Arc Welding Ferrous I 4

WLD 132 Inert Gas Welding Ferrous 4

Total: 12

Secondary Technical Specialty - Air Conditioning/Refrigeration Option

Select one group of courses from the Secondary Technical Specialty options, for a minimum of 12 credit hours. These courses may be substituted as a group for a different technical subject area approved by your advisor.

ACR 106 Basic Electricity for HVAC-R 4

ACR 108 Refrigeration Fundamentals 3

ACR 109 Tools and Service Techniques II 2

ACR 111 Gas Heating Principles 3

Total: 12

Secondary Technical Specialty - Electrical and Automated Technology Option

Select one group of courses from the Secondary Technical Specialty options, for a minimum of 12 credit hours. These courses may be substituted as a group for a different technical subject area approved by your advisor.

EEM 113 DC Circuits I 2
EEM 114 DC Circuits II 2
EEM 151 Motor Controls I 4
EEM 218 AC DC Machines with Electrical Codes I 2
EEM 219 AC DC Machines with Electrical Codes II 2

Total: 12

Secondary Technical Specialty - Machine Tool Option

Select one group of courses from the Secondary Technical Specialty options, for a minimum of 12 credit hours. These courses may be substituted as a group for a different technical subject area approved by your advisor.

MTT 111 Machine Tool Theory and Practice I 5
MTT 112 Machine Tool Theory and Practice II 5
MTT 143 Precision Measurements 2

Total: 12

Additional Requirements - Welding Option

Select one group of courses from the Additional Requirements, matched to the Secondary Technical Specialty group, for a minimum of 5 hours.

WLD 110 Welding Safety and Health 1
WLD 141 Weld Quality 2
WLD 201 Welding Metallurgy 2

Total: 5

Additional Requirements - Air Conditioning/Refrigeration Option

Select one group of courses from the Additional Requirements, matched to the Secondary Technical Specialty group, for a minimum of 5 hours.

ACR 120 Basic Air Conditioning 4
ACR 150 Basic Sheet Metal 2

Total: 6

Additional Requirements - Electrical and Automated Technology

Select one group of courses from the Additional Requirements, matched to the Secondary Technical Specialty group, for a minimum of 5 hours.

EEM 119 AC Circuits I 2
EEM 120 AC Circuits II 2
EEM 251 Programmable Controllers 3

Total: 7

Additional Requirements - Machine Tool Option

Select one group of courses from the Additional Requirements, matched to the Secondary Technical Specialty group, for a minimum of 5 hours.

IMT courses are available based on demand. See your program advisor.

IET 223 Industrial Safety 3
MTT 145 Machining of Metals 3

Total: 6

Admission Requirements

Admission into this program requires proof of high school graduation (or GED) and qualifying scores on SAT, ACT or the TTC placement test.