

# Mechanical Engineering

## FACULTY

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Students prepare for careers as engineering technicians with an emphasis on mechanical systems. Instruction focuses on computer-aided drafting and design (CADD). Students have opportunities to work on community and college projects that may include patent application drawings and detailed machine shop production drawings. Extended learning opportunities are often available with industry partners.

### Associate of Technology Degree: 112 credits

#### Mechanical Engineering

	<u>Credits/Hours</u>
Completion Range: 16-23 Months	
MET 091 Occupational Human Relations	1/20
MET 092 Occupational Communication	3.5/60
MET 093 Occupational Math	6/100
ECMPT 101 Computers as an Engineering Tool	3.5/60
MET 105 Drawing Sheet Standards	3/50
MET 106 Basic Drawing Processes	9/150
MET 107 Intermediate Drawing	15/248
ECAD 110 Basic AutoCAD I	3/50
ECAD 111 Basic AutoCAD II	3/50
ECAD 112 Basic AutoCAD III	8.5/140
MET 204 Machine Elements I	10/165
MET 205 Machine Elements II	8/135
MET 207 Pneumatic, Hydraulic Systems	14.5/240
MET 208 Sheet Metal Drawings	14.5/240
ECAD 220 Intermediate AutoCAD Drafting	10.5/174
ECAD 230 Advanced AutoCAD Drafting	10/169
ECMPT 235 Advanced Design Techniques	3.5/60
MET 246 Surveying the Physical Sciences I	7/116
MET 247 Surveying the Physical Sciences II	7.5/124
MET 251 Career Advancement Strategies	4/66
MET 261 Current Topics Research	4/66
MET 279 Advanced Engineering Projects I	10/169
MET 289 Advanced Engineering Projects II	10/169

#### General Education Requirements

	<u>Credits</u>
100-level or> Human Relations – HREL, PSYCH, SOC or CMST	5
100-level or> Communications – ENGL or CMST	5
100-level or> Mathematics – MATH	5

### Certificate of Competency: 89 credits

#### Mechanical Engineering Technician

	<u>Credits/Hours</u>
Completion Range: 13-19 Months	
MET 091 Occupational Human Relations	1/20
MET 092 Occupational Communication	3.5/60
MET 093 Occupational Math	6/100
ECMPT 101 Computers as an Engineering Tool	3.5/60
MET 105 Drawing Sheet Standards	3/50
MET 106 Basic Drawing Processes	9/150
MET 107 Intermediate Drawing	15/248
ECAD 110 Basic AutoCAD I	3/50
ECAD 111 Basic AutoCAD II	3/50
ECAD 112 Basic AutoCAD III	8.5/140
MET 204 Machine Elements I	10/165
ECAD 220 Intermediate AutoCAD Drafting	10.5/174
MET 251 Career Advancement Strategies	4/66

#### General Education Requirements

	<u>Credits</u>
90-level or> Human Relations – HREL, PSYCH, SOC or CMST	3
90-level or> Communications – ENGL or CMST	3
90-level or> Mathematics – MATH	3

90-level credit units apply toward meeting certificate requirements, but do not apply toward degree requirements.

### Certificate of Training: 38.5 credits

#### Basic AutoCAD Drafting

	<u>Credits/Hours</u>
Completion Range: 6 Months	
MET 091 Occupational Human Relations	1/20
MET 092 Occupational Communications	3.5/60
MET 093 Occupational Math Principles	6/100
ECMPT 101 Computers as an Engineering Tool	3.5/60
MET 106 Basic Drawing Processes	9/150
ECAD 110 Basic AutoCAD Drafting I	3/50
ECAD 112 Basic AutoCAD Drafting III	8.5/140
MET 251 Professional Advancement Strategies	4/66

### Certificate of Training: 41.5 credits

#### Intermediate AutoCAD Drafting

	<u>Credits/Hours</u>
Completion Range: 6 Months	
MET 105 Drawing Sheet Standards	3/50
MET 107 Intermediate Drawing	15/248
ECAD 111 Basic AutoCAD Drafting II	3/50
MET 204 Machine Elements I	10/165
ECAD 220 Intermediate AutoCAD Drafting	10.5/174

### Certificate of Training: 11 credits

#### Mechanical Drafting Fundamentals

	<u>Credits/Hours</u>
Completion Range: 6 Weeks	
MDF 091 Fundamental Workplace Skills	3/50
MDF 101 Computer Fundamentals	1/16
MDF 111 Fundamentals of Drafting	3/50
MDF 121 Fundamentals of CAD Drafting	4/64