Mechanical Systems A.A.S.

Career Community: Electrical and Manufacturing
Curriculum Code: 0173
Effective: Fall 2023 – Summer 2028

Description

Machine maintenance technicians are involved with the repair, maintenance, and installation of industrial equipment. They repair the machinery of industry, solving mechanical problems. The skills necessary for this type of work are many and varied: critical thinking, problem solving, mechanics, math and physics are but a few. Maintenance technicians also need to know how to diagnose hydraulic problems, perform preventative maintenance procedures, and be able to work well with others. Not all courses in this program transfer to all colleges. Students planning to transfer should see an academic advisor before enrolling in any course.

Milestone

In addition to the required General Education courses in Math and English, completion of METD 150 and METM 108 with a 2.0 or higher is a key component for success in completing this program. Knowledge obtained in these courses is the foundation for learning in other required courses. Students are encouraged to contact their faculty if they need additional assistance with learning the concepts presented in these courses.

Additional Information

If students have already completed DCTM 102, ELTE 102, HVAC 102, METS 102, or WELD 102 with a grade of 2.0 or higher, that will satisfy the TECH 102 requirement. Any of these courses will fulfill the prerequisite for the ELTE and METS courses.

Students may substitute ELTE 129 and ELTE 130 for ELTE 131.

Contact Information

For further information, including career options, course substitutions and waivers, etc., contact the Trades Technology Program at the West Campus Building, Room M103, telephone number 517-483-5338 or Student Services West Campus, West Campus Building, Room M106, telephone number 517-267-5452.

General Education - Applied Degrees, Recommended Courses

(For the full list of options, see General Education)

- English Composition or Applied English – *Select one*
  ENGL 124, Technical Writing, 3 credits / 3 billing hours

- English Composition (second course)/Communication or Applied Communication – *Select one*
  COMM 110, Communication in the Workplace, 3 credits / 3 billing hours

- Humanities and Fine Arts or Social Sciences or Applied Social Sciences – *Select one*
  MGMT 234, Diversity in the Workplace, 3 credits / 3 billing hours

- Mathematics or Applied Mathematics – *Select one*
  MATH 115, Technical Math II, 4 credits / 4 billing hours

- Natural Sciences Lab or Applied Science and Technology Lab – *Select one*
  METM 190, Metallurgy and Heat Treatment, 4 credits / 6 billing hours

Program of Study Required Courses

Course Code	Course Title	Credit / Billing Hours
ELTE 110	Practical Electricity	4 / 6
ELTE 131	Machine Controls I	4 / 5
METD 150	Industrial Blueprint Reading	3 / 3
METM 108	Machine Tool Operations	4 / 6
METS 110	Mechanical Power Transmissions	4 / 6
METS 120	Industrial Pneumatics	4 / 6
METS 130	Industrial Hydraulics	4 / 6
METS 140	Rigging	3 / 4.5
METS 160	Introduction to Robotics	3 / 4.5
METS 210	Lubrication and Bearings	4 / 6
METS 250	Gen. Prevent/Predictive Maint	3 / 4.5
TECH 102	General Industry Safety	2 / 3
WELD 103	Combination Welding	4 / 6

Minimum Total Credit Hours

63 credits / 85.5 billing hours

Recommended Course Sequence

Semester I
Gen Ed – Mathematics or Applied Mathematics
ELTE 110
METD 150 – Milestone course
METS 120
TECH 102

Semester II
ELTE 131
METS 110
METS 130
METS 160

Semester III
Gen Ed – English Composition or Applied English
Gen Ed – Natural Sciences Lab or Applied Science and Technology Lab
METM 108 – Milestone course
METS 210

Semester IV
Gen Ed – English Composition (second course)/ Communication or Applied Communication
Gen Ed – Humanities and Fine Arts or Social Sciences or Applied Social Sciences
METS 140
METS 250
WELD 103

LCC makes every effort to limit revisions to the pathways during their effective timeframe. However, the College reserves the right to update certificate and degree title changes, and make course changes as needed, without prior notice.