



Heavy Equipment Repair Technician A.A.S.

Curriculum Code: 1055

Effective: Fall 2021 – Summer 2026

Description

A heavy equipment repair technician is responsible for the efficient, timely, and proper repair on a variety of heavy-duty construction and road equipment. The technician must be knowledgeable in repair of all systems used in heavy equipment including diesel engines, fuel systems, powertrain, electronics, and hydraulics. The technician must be able to diagnose problems, plan repairs including required labor and parts, and then complete the repair. Repairs must be completed with consideration to safety, MIOSHA, and environmental guidelines. A repair technician must be able to work with a minimum of supervision as repairs may be made off site. Attention to detail and a sense of responsibility are required. Students completing this curriculum may also be eligible to apply for a certificate in Heavy Equipment Repair (1041).

Additional Information

All Heavy Equipment Repair (HERT) courses are taught at AIS Construction, 3600 N. Grand River Ave. in Lansing. In addition, one of the courses may be taught by the AIS Construction staff.

Contact Information

Contact the Heavy Equipment Repair Program at the West Campus Building, Room M103, telephone number 517-267-6406.

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)/Communications or Applied Communications – *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*
BIOL 120, Environmental Science, 4 credits / 6 billing hours

Program of Study Required Courses

Course Code	Course Title	Credit / Billing Hours
AUTM 161	Auto Heating/Air Conditioning	4 / 6
HERT 110	Equipment Introduction	5 / 5
HERT 120	Heavy Engine Rebuild	6 / 6
HERT 125	Heavy Equipment Electronics	5 / 5
HERT 130	Equipment Hydraulics	6 / 6
HERT 135	Diesel Fuel System	4 / 4
HERT 140	Equipment Powertrain	5 / 5
HERT 145	Equipment Service Writing	4 / 4
WELD 102	Industrial/Construction Safety	2 / 3

Program of Study Required Courses, Limited Choice – *Select one*

Course Code	Course Title	Credit / Billing Hours
HERT 210	Heavy Equipment Internship	3 / 3
MGMT 150	Managing Customer Relations	3 / 3
WELD 103	Combination Welding	4 / 6

Total Credit Hours

61-62 credits / 66-69 billing hours

Recommended Course Sequence

Semester I (Fall)	Semester II (Spring)
Gen Ed – English Composition or Applied English HERT 110 HERT 120 WELD 102	AUTM 161 HERT 125 HERT 140

Semester III (Summer)	Semester IV (Fall)
HERT 135 HERT 145	Gen Ed – English Composition (Second Course)/ Communications or Applied Communications Gen Ed – Mathematics or Applied Mathematics HERT 130

Semester V (Spring)
Gen Ed – Humanities and Fine Arts or Social Sciences or Applied Social Sciences Gen Ed – Natural Sciences Lab or Applied Science and Technology Lab Limited Choice