



Heavy Equipment Repair Technician A.A.S.

Career Community: Transportation

Curriculum Code: 1055

Effective: Fall 2025 – Summer 2030

Purpose of the Major

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 the Heavy Equipment Repair Certificate of Achievement (1041).

Milestone

In addition to the required General Education courses in Math and English, completion of HERT 120 and HERT 125 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

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

For further information, including career options, course substitutions and waivers, etc., contact the Heavy Equipment Repair Program at the West Campus Building, Room M103, telephone number 517-267-6406.

Major Required Courses - *A minimum of 2.0 is required to meet LCC degree requirements for General Education courses and for all courses to transfer to other colleges (some colleges, and some programs within colleges, require a higher grade in a course).*

Course Code	Course Title	Credit / Billing Hours
ACAD 100	First-Year Experience	1 / 1
COMM 110 or	Communication in the Workplace	3 / 3
COMM 120 or	Dynamics of Communication	3 / 3
COMM 130	Fundamentals Public Speaking	3 / 3

Course Code	Course Title	Credit / Billing Hours
ENGL 121 or ENGL 124 or ENGL 127 or ENGL 131	Composition I Technical Writing Business Writing Honors Composition I	4 / 4 3 / 3 3 / 3 4 / 4
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 Systems	4 / 4
HERT 140	Equipment Powertrain	5 / 5
HERT 145	Equipment Service Writing	4 / 4
HERT 160	Equipment HVAC/Cab Controls	4 / 6
MATH 115 or MATH 119 or MATH 120 or STAT 170	Technical Mathematics Math – Applications for Living College Algebra Introduction to Statistics	4 / 4 4 / 4 4 / 4 4 / 4
TECH 102	General Industry Safety	2 / 3

Notes:

ACAD 100 may be waived when students meet one of the following College-approved waiver criteria:

- Completion of 12 college-level credits with minimum grades of 2.0 shown on the LCC transcript (including transfer, if applicable), or
- Employment in the field of, or a field related to, the degree being sought

Students wishing to waive ACAD 100 should contact their advisor.

Students considering future transfer, choose MATH 119 or MATH 120 or STAT 170.

Program of Study Required Courses, Limited Choice – Humanities and Fine Arts or Social Sciences or Applied Social Sciences - *Select one as recommended or select one from [LCC General Education Applied Degrees](#): Humanities and Fine Arts or Social Sciences or Applied Social Sciences. A minimum grade of 2.0 is required for General Education courses.*

Course Code	Course Title	Credit / Billing Hours
HUMS 223	The Western World to 1500	4 / 4
HUMS 224	The Western World since 1500	4 / 4
MGMT 234	Diversity in the Workplace	3 / 3
SOCL 120	Introduction to Sociology	4 / 4

Note: Students considering future transfer, choose HUMS 223, HUMS 224, or SOCL 120.

Program of Study Required Courses, Limited Choice – Natural Sciences or Applied Sciences and Technology Lab - Select one lab course as recommended or select one from [LCC General Education Applied Degrees](#): Natural Sciences or Applied Sciences and Technology Lab. A minimum grade of 2.0 is required for General Education courses.

Course Code	Course Title	Credit / Billing Hours
ASTR 201	Introductory Astronomy	4 / 5
BIOL 120	Environmental Science	4 / 6
PHYS 200	Intro to Applied Physics	4 / 5

Note: Students considering future transfer, choose ASTR 201 or BIOL 120.

Major 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

General Education - Applied Degrees

- English Composition or Applied English
Major Required Courses will meet this requirement.
- English Composition (second course)/Communication or Applied Communication
Major Required Courses will meet this requirement.
- Humanities and Fine Arts or Social Sciences or Applied Social Sciences
Major Required Limited Choice Courses will meet this requirement.
- Mathematics or Applied Mathematics
Major Required Courses will meet this requirement.
- Natural Sciences Lab or Applied Science and Technology Lab
Major Required Limited Choice Courses will meet this requirement.

Additional Credits

After completing the course and credit requirements as noted on this pathway, students who fall short of the 60-credit minimum required for an Associate Degree may select any course(s) needed to reach 60 credits, except those courses noted in number 7 in the [Institutional Requirements for Associate Degrees](#). Students are encouraged to use Degree Works and meet with an Advisor to ensure all requirements are met and for course recommendations.

Minimum Total Credit Hours

61 credits / 65 billing hours

Recommended Course Sequence

Semester I (Fall)
ACAD 100
ENGL 121 or ENGL 124 or ENGL127 or ENGL 131
HERT 110
HERT 120 – Milestone course
TECH 102

Semester II (Spring)
HERT 125 – Milestone course
HERT 140
HERT 160

Semester III (Summer)
HERT 135
HERT 145

Semester IV (Fall)
COMM 110 or COMM 120 or COMM 130
HERT 130
MATH 115 or MATH 119 or MATH 120 or STAT 170

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

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 titles, and make course changes as needed, without prior notice. The College also reserves the right to discontinue programs when warranted