

Degree in Diesel Technology - Heavy Equipment Apprentice

Program Details

The Diesel Technology Heavy Equipment Apprentice program constitutes an articulation agreement between Massasoit Community College Diesel Technology department and the Hoisting and Portable Engineers Local 4 Apprenticeship Program. This program is for students who enrolled in or have graduated from the Local 4 Apprenticeship Program. Students must provide verification of enrollment and/or an official copy of the graduation transcript. Students will be able to transfer courses from their apprenticeship program that will be accepted for certain Massasoit courses and applied to the degree.

Graduates earn an Associate in Applied Science Degree.

Program Outcomes

At the successful completion of the program curriculum, students will be able to:

- Follow safety standards related to the safe functioning in a heavy-equipment shop environment.
- Apply theory and principles for proper maintenance, diagnosis, and repair of systems and components related to the construction, agricultural, marine, and transportation industries.
- Recognize potentially hazardous situations in the industrial workplace.
- Troubleshoot and resolve equipment malfunctions.
- Apply a logical assembly/repair process to repair projects.
- Disassemble and assemble various components used in the diesel industry to manufactures standards.
- Diagnose and repair electrical components and wiring used in the diesel industry.
- Use manufacturers' manuals in the performance of assigned work.
- Determine the status of parts for reuse using manufacturer's guidelines

Academic Maps

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A minimum of 20 classes and 62 credits is required. At least 16 credits of your program must be taken at Massasoit. Note: Each course completed and passed can only fulfill one program requirement. The same course cannot be used to satisfy multiple program requirements.

Required Courses

3 Credits in DIES 107
Engine Principles I
4 Credits in DIES 141
Fundamentals of Standby Power Generation
3 Credits in DIES 150
Crane Safety
3 Credits in DIES 153
Rigging and Reeving
3 Credits in DIES 154
Electricity I
3 Credits in DIES 155
Electricity II
3 Credits in DIES 156
Heavy Equipment Pre-Operation Inspection
3 Credits in DIES 158
Earthmoving Equipment Operation
4 Credits in DIES 159
Welding
3 Credits in DIES 222
Electronic Engine Diagnostics
3 Credits in DIES 226
Hydraulics
3 Credits in DIES 241
Environmental Health and Safety
3 Credits in DIES 401
Diesel Internship
3 Credits in ENGL 101

English Composition I
3 Credits in ENGL 102
English Composition II
3 Credits in either HIST 131 or HIST 251
(The United States Since 1945 or American Labor History)
3 Credits in MATH 203 or higher
College Algebra or higher
Choose 1 Group
Classes in PHYS 132 + 133
Concepts of Technical Physics I & II OR
2 Classes in PHYS 151 + 152
College Physics I & II OR
2 Classes in PHYS 161 + 162
General Physics I & II
Physics I & II
3 Credits in Liberal Arts elective

This academic map is a suggested semester-by-semester guide to keep you on a clear path to program completion. Please note that some classes are offered only in certain semesters, have prerequisites, or minimum passing grades. Winter and/or Summer Session classes may be available for some classes. Your [academic advisor](#) will provide you with clear direction needed to stay on course and discuss scheduling options with you. Taking courses not reflected on this map may result in courses not counting toward the completion of your requirements.