

Degree in Diesel Technology

Program Details

The Diesel Technology Associate of Applied Science degree program is designed to train truck and heavy equipment technicians who can maintain, repair, and overhaul heavy duty and medium vehicle engines and support systems. Through lectures and lab instruction, this program provides students with a broad range of knowledge and skills necessary to work within the dynamic field of heavy duty and medium vehicle technology.

The associate degree curriculum prepares students to enter the industry at the mechanical level. After gaining experience, graduates of the associate-level program can expect to move into a position with the potential of advancing to shop foreman, service manager, branch manager, service writer, or field technical service representative; some may even run their own businesses.

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 manufacture 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 Map

Degree in Diesel Technology

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.

Semester 1

3 Credits in DIES 107
Engine Principles I
3 Credits in DIES 108
Electrical Systems
3 Credits in DIES 123 or DIES 230
Truck Components I or Powertrain Systems I
3 Credits in ENGL 101
English Composition I
3 Credits in MATH 203 or higher
College Algebra or higher

Semester 2

3 Credits in DIES 124 or DIES 231
Truck Components II Or Powertrain Systems II
4 Credits in DIES 141
Fundamentals of Standby Power Generation
3 Credits in DIES 223
Compressed Natural Gas Engines
3 Credits in DIES 226
Hydraulics
3 Credits in either HIST 131 or HIST 251
(The United States Since 1945 or American Labor History)

Semester 3

3 Credits in DIES 122
Fuel Systems
3 Credits in DIES 222
Electronic Engine Diagnostics
3 Credits in ENGL 102
English Composition II
3 Credits in Physics elective
3 Credits in Liberal Arts elective
Liberal Arts elective

Semester 4

3 Credits in DIES 133
Governing and Computer Control Systems
4 Credits in DIES 134
Multi-Cylinder Overhaul
3 Credits in DIES 227 or DIES elective
Advanced Hydraulic Systems or Diesel elective
3 Credits in DIES 401
Diesel Internship
3 Credits in Physics II 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.

Advisory Committee

This committee is made up of experienced professionals from the diesel, transportation, and heavy equipment industries who work in partnership with faculty and staff to ensure the program remains aligned with current industry standards and workforce needs. By offering valuable input on curriculum development, emerging technologies, and hands-on training opportunities, the committee plays a key role in preparing students for successful careers as skilled diesel technicians. Together, we are committed to advancing technical education and supporting the next generation of professionals in this high-demand field.

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