

Diesel Specialist

Holland code family: Doers

About the Program

The Diesel Specialist four-term certificate program is designed for students seeking an entry-level career in today's diesel repair industry. The program builds rapidly from fundamentals and theory into diagnosis and repair of today's modern equipment based upon Automotive Service Excellence (ASE) and industrial standards.

The design of the program places heavy emphasis upon actual hands-on work in diesel labs. Approximately two-thirds of the time spent in the program is in a lab (shop) environment where the student applies theory to diagnosis and repair of a wide variety of equipment. As students' skill levels develop so does the difficulty of repairs performed.

Program Learning Outcomes

The curriculum in RCC courses is derived from a set of identified learning outcomes that are relevant to the discipline. Program learning outcomes for diesel technology programs are:

Work within OSHA, RCC, and current industry safety guidelines and standards to promote a safe working environment.

Read wiring diagrams and schematics, measure voltage, amperage and resistance with common industry equipment, evaluate and troubleshoot wiring, charging and starting problems.

Evaluate, troubleshoot and repair diesel engines, heavy-duty brakes, suspension and steering, power train assemblies, air conditioning and basic hydraulics.

Evaluate and troubleshoot computerized systems on the chassis, engine, brakes and suspension, evaluate fault codes, and make repairs as needed.

Work in a cohesive group on a collective project from beginning to end, producing high quality work while adhering to safety and lab procedures.

Entry Requirements

Students are required to complete the Placement Process to determine skill level and readiness in math, reading, and writing. As part of their training program, students must begin with the courses within their skill level as determined through the Placement Process. In addition, students may also be required to enroll in classes that would increase their employability and success.

Advanced Standing

Coursework from accredited colleges and universities will be accepted in accordance with college policies. In order to ensure that coursework is current, program courses over five years old must be reviewed and approved by the appropriate department chair before being accepted toward core requirements. College Now credit will be accepted in accordance with current agreement. Verified Automotive Service Excellence (ASE) certification or industry experience may be substituted for some coursework in accordance with college policy and the department chair's approval.

Graduation Requirements

Students must complete all courses in this program with a grade of "C" or better to receive their certificates. Certain required courses are graded on a pass/no pass basis only. A grade of "P" for these courses indicates a student earned the equivalent of a "C" or better grade.

Prerequisites

Course No.	Course Title	Credits
CS/CIS	Approved 3-4 credit Computer Science or Computer Information Science class, CS120/CIS120 or above, or documented computer proficiency within the past ten years. ¹	0-4
MTH20	Pre-algebra or designated placement test score	0-4
RD90/WR90	College Reading/Fundamentals of Composition or WR91 Fundamentals of Academic Literacy (WR91 substitutes for both RD90 and WR90) or designated placement test score	0-8
Total Prerequisite Credits		0-16

Technical Requirements

Course No.	Course Title	Credits
First Term		
BT113	Business English I or higher level composition ²	4
DS111	Basic Electricity for Diesel Technicians I	7
DS120	Diesel Practices	2
		16



Second Term

DS131	Diesel Engine Dynamics and Diagnosis	4
DS134	Basic Electricity for Diesel Technicians II	3
DS141	Heavy Equipment Power Trains	4
		11

Third Term

DS113	Diesel Engine Overhaul	6
DS151	Heavy Equipment Brakes	5
DS190	Diesel Repair Lab I	3
MTH63	Applied Algebra I or MTH60 Fundamentals of Algebra I or higher level math	4
		18

Fourth Term (Summer)

BT101	Human Relations in Organizations or PSY101 Psychology of Human Relations	3
DS232	Heavy Equipment Fuel Systems	3
DS270	Air Conditioning for Diesel Technicians	5
	Approved program elective(s)	6-7
		17-18

TOTAL PROGRAM CREDITS

62-63

Approved Program Electives (6-7 credits required)

Course No.	Course Title	Credits
AM190	Automotive Repair Lab I	4
BA109	Ready, Set, Work: Techniques for Landing a Job	2
DS112	Gasoline Engines Rebuild	5
DS199	Selected Topic Workshop	1-6
DS280	Cooperative Work Experience/Diesel	variable

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DS280S	Cooperative Work Experience Seminar/Diesel	1
DS290	Diesel Repair Lab II	3
EET101	Introduction to Electronics	3
EET112	Introduction to Mechatronics	5
GS104	Physical Science with lab	4
MEC103	Industrial Safety	1
MEC124	Hoisting and Rigging	3
MFG121	Manufacturing Processes I	4

¹ Required for graduation.

² WR115 or higher level composition may also be substituted.

For more information contact the Diesel Technology Department:

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This advising guide is for advising purposes only. Please see current college catalog for additional information on specific college policies and graduation requirements.

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