

2016 – 2017 Career Technical Programs

Advanced Technology Division 541.463.5380

lanecc.edu

Program Coordinator Tracy Rea, Bldg. 15, Rm. 201, 541.463.5151, reat@lanecc.edu

Purpose To prepare the graduate for employment in occupations such as heavy equipment technician and highway truck technician. Possible job opportunities are available with truck fleets, logging fleets, heavy construction companies, OEM dealerships, road construction contractors, parts sales, general heavy equipment repair shops, agriculture fleets and repair shops.

Learning Outcomes The student who successfully completes all Diesel Technology requirements will:

- access library, computing, and communications services and obtain information and data from regional and national networks.
- identify and explain various technologies used in the repair of onand off-highway vehicles.
- demonstrate and use industry safety standards.
- demonstrate math skills using formulas to find force, pressure, area, and volume.
- use lab station simulators to diagnose and troubleshoot system components.
- demonstrate troubleshooting, maintenance and repair procedures including: testing, disassembly, failure analysis, assembly and operation using industry standard tooling and equipment, to diagnose diesel fuel systems and components found on highway trucks, off highway vehicles and stationary applications including construction equipment, agriculture equipment, marine applications, truck equipment and power generation.
- demonstrate troubleshooting, maintenance and repair procedures including: testing, disassembly, failure analysis, assembly and operation using industry standard tooling and equipment, to diagnose brake systems and components found on highway trucks, off highway vehicles and stationary applications including construction equipment, agriculture equipment, marine applications, truck equipment and power generation.
- demonstrate troubleshooting, maintenance and repair procedures including: testing, disassembly, failure analysis, assembly and operation using industry standard tooling and equipment, to diagnose power train systems and components found on highway trucks, off highway vehicles and stationary applications including construction equipment, agriculture equipment, marine applications, truck equipment and power generation.
- demonstrate troubleshooting, maintenance and repair procedures including: testing, disassembly, failure analysis, assembly and operation using industry standard tooling and equipment to diagnose hydraulic systems and components found on highway trucks, off highway vehicles and stationary hydraulic systems including construction equipment, agriculture equipment, marine applications, truck equipment and plant hydraulics.
- demonstrate troubleshooting, maintenance and repair procedures including: testing, disassembly, failure analysis, assembly and operation using industry standard tooling and equipment, to diagnose diesel electrical systems and components found on highway trucks, off highway vehicles and stationary applications including construction equipment, agriculture equipment, marine applications, truck equipment and power generation.

 demonstrate troubleshooting, maintenance and repair procedures including: testing, disassembly, failure analysis, assembly and operation using industry standard tooling and equipment, to diagnose diesel engines and components found on highway trucks, off highway vehicles and stationary applications including construction equipment, agriculture equipment, marine applications, truck equipment and power generation.

Accreditation Diesel Technology, evaluated and accredited by the Association of Equipment Distributors Foundation (AEDF). Membership: Northwest Diesel Industry Council (NDC) and Oregon Trucking Association (OTA).

Admission Information See lanecc.edu/advtech/ds or contact the Advanced Technology Division, *AdvTechPrograms@lanecc.edu*

Advising & Counseling classes.lanecc.edu/course/view.php?id= 31255

Cooperative Education (Co-op) Co-op offers students college credit and a grade for on-the-job work experience related to their educational and career goals. Through Co-op, students connect theory and practice, develop skills, expand career knowledge, and make contacts for the future. Work schedules and work sites vary. Under the supervision of the Diesel Technology Co-op Coordinator and with instructor consent, a maximum of 18 Co-op credits in DS 280 may be earned in lieu of required Diesel Technology course credits. Contact Marv Clemons, Diesel Technology Co-op Coordinator, Bldg. 12, Rm. 120A, 541.463.3158, *clemonsm@lanecc.edu*

Job Openings Projected through 2020

Lane County openings 157 annually

Statewide openings 1,759 annually Wages

Lane County average hourly \$23.11; average annual \$48,079 Oregon average hourly \$23.70; average annual \$49,303

Costs (Estimate based on 2015-16 data for full-time students.) Students attending part-time will incur additional term fees. Consult Lane's website for updated tuition and fees.)

Books	\$2,283
Differential Fees*	\$2,550
Instruments/Tools	\$400
Program Specific Fees	\$888
Resident Tuition and General Student Fees	\$11,609

Total Estimated Cost \$17,730

*This is the total of all the differential fees attached to the courses in this program. These fees and other course fees may change during the year. See the online credit class schedule for fees assigned to courses.

Course Requirements

- 1. Prerequisites are required for some courses. See course descriptions.
- 2. All DS, MFG courses and MTH 060 must be completed with a letter grade of "C-" or better.
- 3. WR 115 and the PE/Health requirement must be completed with a Pass or "C-" grade or better.

Diesel Technology

Associate of Applied Science Degree Certificate of Completion

Diesel Technology

- Arts and Letters choices are listed on the Associate of Applied Science degree page.
- Minimum placement score of 68 in Reading, OR completion of RD080, OR RD087 AND EL115, OR prior college. A high school diploma or equivalent is recommended for all applicants to this program.

First Year DS 155 Heavy Equipment Hydraulics MTH 075 Applied Algebra for Technicians	Fall 12 4
	Winter
DS 154 Heavy Duty Braking Systems	12
WI D 121 Shielded Metal Arc Welding 1	4
PE/Health Requirement	3
	Spring
DS 158 Heavy Equipment Chassis and Power Trains	12
Human Belations Bequirement	3
WB 115W Introduction to College Writing	0
Workplace Emphasis	3
Second Vear	Fall
Choice of:	3_/
MEG 197 Manufacturing Technology	5-4
WI D 122 Shielded Metal Arc Welding 2	
DS 256 Diesel and Auxiliary Fuel Systems	12
MTH 085 Applied Geometry for Technicians	4
	Winter
CS 120 Concepts of Computing: Information Processing	1
DS 257 Diesel Electrical Systems	12
WI D 143 Wire Drive Welding 1	4
	Covina
DS 250 Dissel Engines and Engine Querhaul	Spring 10
DS 259 Diesei Engines and Engine Overnaul	12
Arte and Lotters Pequirement	3
Ans and Letters nequirement	3

Diesel Technology

Offered by the Advanced Technology Division, 541.463.5380

Two-Year Certificate of Completion

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Learning Outcomes The graduate will:

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- identify and explain various technologies used in the repair of onand off-highway vehicles.
- demonstrate and use industry safety standards.
- demonstrate math skills using formulas to find force, pressure, area, and volume.
- use lab station simulators to diagnose and troubleshoot system components.
- demonstrate troubleshooting, maintenance and repair procedures including: testing, disassembly, failure analysis, assembly and operation using industry standard tooling and equipment, to diagnose diesel fuel systems and components found on highway trucks, off highway vehicles and stationary applications including construction equipment, agriculture equipment, marine applications, truck equipment and power generation.

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Admission Information See lanecc.edu/advtech/ds or contact the Advanced Technology Division, *AdvTechPrograms@lanecc.edu*

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Job Openings Projected through 2020

Lane County: 20 positions Statewide: 260 positions

Wages

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Costs (Estimate based on 2015-16 data for full-time students. Students attending part-time will incur additional term fees. Consult Lane's website for updated tuition and fees.)

\$2,124
\$2,550
\$400
\$384
\$10,563

Total Estimated Cost \$16,021

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Diesel Technology

Gainful Employment Disclosure

Standard Occupational Classification: 49-3031.00

Go to the Department of Labor's O*Net website for a profile of this occupation:

Bus and Truck Mechanics and Diesel Engine Specialists *Onetonline.org/link/summary/49-3031.00*

Or check on these O*Net Related Occupations:

Mobile Heavy Equipment Mechanics, Except Engines onetonline.org.link/summary/49-3042.00

In academic year 2014-15, 8 students completed this certificate.

The program is designed to take 8 terms, or about 24 months of study to complete.

Lane Community College is committed to protecting student privacy and does not publish this rate for fewer than 10 graduates.

For privacy reasons under FERPA, loan information is not disclosed for programs with fewer than 10 graduates in the reported year.

Explanation of costs: lanecc.edu/esfs/credit-fees-and-expenses

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