

DIESEL TECHNOLOGY (ATC)

Advanced Technical Certificate

Career-Technical Program

Interest Areas:

Manufacturing and Trades

This program is designed to prepare students for employment as entry-level truck/heavy equipment technicians. The Diesel Technology program emphasizes extensive shop work using actual customer projects, as well as mock-up units and assemblies similar to those found in industry. Instruction includes theory and troubleshooting of problems involved in the repair and maintenance of engines, transmissions, differentials, brakes, steering, suspension, cooling, as well as hydraulics, undercarriages, fuel and air systems, and introduction to vehicle/equipment operation. Integrated in the program is a course in safety and basic welding procedures. Successful completion of each semester or permission of the instructor is required to continue into the next semester. Placement in specific English and math courses is determined by the college assessment test.

Current industry professionals may enroll in individual courses on a space-available basis and with the instructor's permission.

Contact Information:

Trades & Industry Division
Parker Technical Education Center
7064 West Lancaster Road
Rathdrum, ID 83858
Phone: (208) 769-3448

Program Website (<https://www.nic.edu/programs/diesel-technology/>)

Program Requirements

Course	Title	Credits
Semester 1		
DSL-104	Safety and Introduction to Shop Practices	2
DSL-123L	Diesel Engines/Electrical Systems Lab	6
DSL-125	Diesel Engines	2
DSL-126	Electrical Systems	3
DSL-133	Introduction to Electrical	1
MCTE-104	Technical Mathematics for Automotive Technology and Diesel	3
Credits		17
Semester 2		
DSL-124	Powertrain/Brake Systems	5
DSL-124L	Powertrain/Brake Systems Lab	6
ENGL-101 or ENGL-101P	Writing and Rhetoric I or Writing and Rhetoric I	3
Credits		14
Summer 1		
DSL-117L	Diesel Lab	2
DSL-137	Suspension/Steering and A/C	2
Credits		4
Semester 3		
ATEC-117	Occupational Relations and Job Search	2

DSL-223	Advanced Tune-Up/Computerized Engines	4
DSL-223L	Advanced Tune-Up/Computerized Engines Lab	6
Credits		12
Semester 4		
DSL-203	Basic Hydraulic Systems	2
DSL-224	Undercarriage/Powershift Transmissions And Hydraulics	4
DSL-224L	Undercarriage/Powershift Transmissions And Hydraulics Lab	6
Credits		12
Total Credits		59

Course Key



GEM



AAS
Institutionally
Designated



Gateway



Milestone

Program Outcomes

Upon completion of the program, students will be able to:

1. Explain proper safety procedures in regard to overall shop safety practices with emphasis on equipment and maintenance/repair of diesel components.
2. Troubleshoot, repair, and rebuild a diesel engine.
3. Understand and apply electrical principles as they relate to starting and charging.
4. Recognize, troubleshoot and repair powertrain systems including transmissions, differentials, brake systems and drive trains.
5. Demonstrate good work habits, communication practices and computation skills when performing both technical and general functions required of a diesel technician.
6. Troubleshoot, repair, and rebuild a variety of diesel engines and their respective systems commonly found in the industry.
7. Understand and apply electrical principles as they relate to starting, charging and electronic systems.
8. Explain and apply hydraulic concepts, formulas and repair procedures to a variety of diesel vehicles found in the industry.