

Diesel Engine Repair 1 & 2
Scope & Sequence: Year 1

Semester 1		Semester 2	
Quarter 1	Quarter 2	Quarter 3	Quarter 4
<p>Technical Standards: 1.1-1.16, 1.23, 1.24 Professional Standards: 4.F, 5.A, 8.0</p> <p>Unit 1</p> <p>General Shop Safety</p> <ul style="list-style-type: none"> • Explain Safety Culture • Physical/Environmental Hazards • Demonstrate PPE • Demonstrate Fire Safety • Demonstrate Tool Safety <p><i>*SP/2 Safety Completion</i> <i>*Shop Specific Assessment Completion</i></p> <p>Technical Standards: 1.17-1.22 Professional Standards: 1.D, 4.F, 5.A, 9.C</p> <p>Unit 2</p> <p>Tools and Equipment</p> <ul style="list-style-type: none"> • Explain Standard and Metric • Demonstrate Proper Tool Use • Cleaning and Storage • Measuring tools 	<p>Standards: 2.1-2.6, 3.1-3.3 Professional Standards: 3.A, 4.F, 5.D, 8.0</p> <p>Unit 3</p> <p>Vehicle Inspections</p> <ul style="list-style-type: none"> • Perform Underhood Insp. • Perform Underbody Insp. • Identify and Service Fluids • Inspect and Diagnose Cab Safety Features <p>Standards: 14.1-14.6 Professional Standards: 3.A, 4.F, 5.D, 8.0</p> <p>Unit 4</p> <p>Battery Service</p> <ul style="list-style-type: none"> • Inspect Battery • Test Battery • Perform Battery Service <p>Standards: 11.1-11.4 Professional Standards: 3.A, 4.F, 5.D, 8.0</p> <p>Unit 5</p> <p>Tire and Wheel Fundamentals</p> <ul style="list-style-type: none"> • Describe Alignment Angles • Tire Construction/Identification • Identify Wheel Problems • Inspect Mounting Hardware 	<p>Standards: 3.1-3.3 Professional Standards: 5.A, 5.D</p> <p>Unit 6</p> <p>Lubrication System</p> <ul style="list-style-type: none"> • Identify Components • Change Oil and Filters • Retrieve Oil Sample <p>Standards: 4.1-4.9 Professional Standards: 5.A, 5.F</p> <p>Unit 7</p> <p>Cooling System</p> <ul style="list-style-type: none"> • Identify Component and Operation • Inspect Components • Test Coolant Condition • Test Component Operation • Diagnose Cause of Leak <p>Standards: 7.1-7.2, 7.5-7.6, 7.8-7.9, 7.11, 7.13-7.7.15 Professional Standards: 5.A, 5.F</p> <p>Unit 8</p> <p>Intro to Driveline</p> <ul style="list-style-type: none"> • Inspect Manual Oil Level • Inspect Automatic Oil Level • Inspect Driveshafts • Inspect Breathers • Identify Components / Configuration 	<p>Standards: 8.1-8.3, 9.1-9.13 Professional Standards: 5.A, 5.F</p> <p>Unit 9</p> <p>Brake Fundamentals</p> <ul style="list-style-type: none"> • Foundation Brakes • Identify Disc Brake Components • Identify Drum Brake Components • Identify Air Brake Components • Inspect Brake Condition <p>Standards: 13.1-13.4, 13.8 Professional Standards: 5.A, 5.F</p> <p>Unit 10</p> <p>Electrical I</p> <ul style="list-style-type: none"> • Ohm's Law • Circuit Types • Basic Circuit Faults • Electrical Service Tools <p>Unit 11</p> <p>Review/Summative</p> <ul style="list-style-type: none"> • Individual Projects • Reflections • Summative • Supports and Feedback