

Transportation, Distribution & Logistics Cluster

Medium/Heavy Diesel Truck Repair Pathway –

Medium/Heavy Diesel Service Technician – Students in this major will learn skills needed to be able to cover the diagnosis and repair of the diesel truck. Students will cover safety and tools and equipment operation for the repair industry. They will learn about electrical theory, Digital Volt Ohm Meter (DVOM) usage, electrical system repairs, brake systems, engine, air conditioning system, steering and suspension system and the drive train. Students will cover Engine Performance and Drivability diagnosis using diagnostic tools, and determining necessary action. They will also learn how to test and replace the components of all of these systems. In addition, students will also learn about the preventative maintenance inspection and performance procedures, regulations, and documentation. The hours completed in this major count toward the hours required to be eligible for ASE certification.

Medium/Heavy Diesel Truck Service & Light Repair Technician – Students in this major will learn how to perform basic service to a wide variety of trucks and buses. Students will also learn about the preventative maintenance inspection and performance procedures, regulations, and documentation. They will learn about electrical systems including how to test and replace electrical parts like the battery system and electronics using a Digital Volt Ohm Meters (DVOM). In addition, students will learn about brake system, steering system, and heating, ventilation, and air conditioning system diagnosis, problem solving techniques and repair procedures. Engine inspection, diagnosis and repair will also be covered in this major. The hours completed in this major are aligned with ASE/NATEF standards, and ASE certification is recommended and industry recognized.

Medium/Heavy Diesel Preventative Maintenance Technician – Students in this major will learn how to perform preventative maintenance on all types of diesel engines and drivetrains, found in trucks and buses. They will learn the basic electrical system and how to use Digital Volt Ohm Meters (DVOM) to check voltage current flow, resistance, and to find shorts and grounds. Students will also learn about the preventative maintenance inspection and performance procedures, regulations, and documentation. In addition, students will learn about the A/C system and how to inspect and change out the system components. The hours completed in this major are aligned with ASE/NATEF standards, and ASE certification is recommended and industry recognized.

Medium/Heavy Diesel Truck Engine Technician – Students in this major will learn how to diagnose, adjust, repair, and provide service for all types of diesel engines, including trucks and buses. They will learn about the electrical system and how to test and replace the systems components, including the battery system and electronics using a Digital Volt Ohm Meters (DVOM). In Engine Performance, the students will also learn how to inspect, diagnose and determine necessary repair of diesel engines while using electronic scan tools. They will gain hands on experience in disassembling, repairing and reassembling a diesel engine. The hours completed in this major are aligned with ASE/NATEF standards, and ASE certification is recommended and industry recognized.

Medium/Heavy Diesel Parts Specialist – Students in this major will learn a quick broad scope of skills needed to be a diesel parts specialist. Students will get a basic understanding of how all components of the diesel vehicle work and where they are located. They will learn the importance of preventative maintenance and how to follow inspection procedures and regulations. In addition, students will also learn how to perform routine service on diesel engines and how to look for and repair problems. Students will also receive training in shop and tool safety in addition to a course on customer service, marketing and communication in which they will learn communication techniques.

Medium/Heavy Diesel Truck Heavy Line Technician – Students in this major will learn the skills to provide service and repair to the engine, chassis and drivetrain components. They will learn about the electrical system and to test and replace the system components using a Digital Volt Ohm Meters (DVOM). Students will also learn about the preventative maintenance inspection and performance procedures, regulations, and documentation. Students will also learn how to inspect, diagnose and repair diesel engines. They will gain hands on experience in disassembling, repairing and reassembling a diesel engine. In addition, students will learn about the brake system, steering system, hydraulic system and drive train diagnosis, problem solving techniques and repair procedures. In addition the students will cover hydraulic systems found in medium and heavy truck applications. The hours completed in this major are aligned with ASE/NATEF standards, and ASE certification is recommended and industry recognized.

Medium/Heavy Diesel Service Consultant – Students in this major will learn how to communicate with customers to determine their needs and how to communicate the customer's needs to the technician who will be working on the vehicle. A service consultant needs to have a basic understanding of diesel engines and therefore as part of the major an introductory course in electricity, basic maintenance, and engine service will be included. In addition, two courses on communication, marketing and customer service will be included to help students prepare to work with customers.

Medium/Heavy Diesel Technician Workforce Transition – Students must complete medium/heavy diesel truck repair major prior to enrolling in this one. In this major the students will learn leadership, personal development and employability skills. Also included in the major is a Work-Site Experience (WSE) that is planned, organized, and conducted at the student's place of employment that will be used to broaden skills and increase effectiveness and productivity. In addition, a formalized mentor-ship will be included and based on the instructional process for the purpose of accelerating the student's skill development and individual transition into the diesel workforce.