



# Transportation, Distribution, and Logistics Career Cluster

The Transportation, Distribution, and Logistics career cluster focuses on planning, management, and movement of people, materials, and goods by road, pipeline, air, rail, and water. It also includes transportation infrastructure planning and management, logistics services, and mobile equipment and facility maintenance. This career cluster includes occupations ranging from automotive mechanic, avionics technician, and automotive entrepreneur to pilots and logistics planning professionals.

## Statewide Program of Study: *Diesel and Heavy Equipment Maintenance and Commercial Driver*

### Endorsement: *Business and Industry*

The Diesel, Heavy Equipment Maintenance, and Commercial Drivers program of study focuses on occupational & educational opportunities associated with the function, operations, diagnosis, and service of diesel and heavy equipment systems. This program of study includes driving, inspecting, diagnosing, and repairing off-highway and on-highway vehicles and equipment.

Courses are dual-credit (college) level & taught at **Texas State Technical College in Red Oak**. Transportation and certain costs associated with the program are covered for all students by Midlothian Independent School District.



## Diesel & Heavy Equipment Course Sequence

### Postsecondary Opportunities

#### Apprenticeships

- Diesel Mechanic Apprentice

#### Associate Degrees

- Diesel Mechanics Technology
- Medium/Heavy Vehicle and Truck Technology

#### Bachelor's Degrees

- Electrical and Power Transmission Technology
- Construction/Heavy Equipment/Earthmoving Equipment Operation

10<sup>th</sup> or 11<sup>th</sup> grade

Course	Prerequisites   Corequisites
<b>Occupational Safety and Environmental Technology I</b>  Fall, 1 credit, 3 class periods	<b>MISD &amp; TSTC Prerequisites: 10<sup>th</sup> or 11<sup>th</sup> grade.</b> Student must be on target for credits towards graduation, in good academic standing, and have no attendance issues.
<b>Diesel Equipment Technology I</b>  Spring, 1 credit, 3 class periods	<b>MISD &amp; TSTC Prerequisites: 10<sup>th</sup> or 11<sup>th</sup> grade.</b> Occupational Safety and Environmental Technology I

11<sup>th</sup> or 12<sup>th</sup> grade

Course	Prerequisites   Corequisites
<b>Diesel Equipment Technology II</b>  Fall, 2 credits, 3 class periods	<b>MISD &amp; TSTC Prerequisites: 11<sup>th</sup> or 12<sup>th</sup> grade.</b> Diesel Equipment Technology I
<b>Diesel Equipment Technology II + Advanced Transportation Systems Laboratory</b>  Spring, 3 credits, 3 class periods	<b>MISD &amp; TSTC Prerequisites: 11<sup>th</sup> or 12<sup>th</sup> grade.</b>  Diesel Equipment Technology II
<b>Industry Based Certification</b>	TSTC Red Oak Program Completion Certification

### Aligned Occupations

#### *Heavy and Tractor-Trailer Truck Drivers*

Median Wage: \$46,825  
 Annual Openings: 29,081  
 10-Year Growth: 22%

#### *Mobile Heavy Equipment Mechanics*

Median Wage: \$57,943  
 Annual Openings: 2,637  
 10-Year Growth: 31%

#### *First-Line Supervisors of Mechanics, Installers, and Repairers*

Median Wage: \$66,535  
 Annual Openings: 5,019  
 10-Year Growth: 19%

To earn the Diesel Pathway and Business and Industry Endorsement, students must complete the entire Red Oak Program.

1. A student can be removed from the program if they do not meet attendance and/or academic requirements.

# Diesel and Heavy Equipment Maintenance and Commercial Driver

## BUSINESS & INDUSTRY ENDORSEMENT



An example of a four-year plan for a student entering 9<sup>th</sup> grade to complete the Diesel and Heavy Equipment Maintenance and Commercial Driver

Program of Study. **NOTE: this program can begin either in 10<sup>th</sup> or 11<sup>th</sup> grade.**

9th	10th	11th	12th
English 1	English 2	3 <sup>rd</sup> Math	Advanced English
Algebra 1	English 3	4 <sup>th</sup> Science	4 <sup>th</sup> Math
Biology or IPC	Geometry	US History	Govt./Econ.
World Geography	Biology or Chemistry	Lunch and travel time to TSTC Red Oak	
Fine Arts	3 <sup>rd</sup> Science	<b>Occupational Safety and Environmental Technology I – FALL</b>  <b>Diesel Equipment Technology I - SPRING</b>	<b>Diesel Equipment Technology II – FALL</b>
Physical Education	World History		<b>Diesel Equipment Technology II + ADV. Transport Systems Lab - SPRING</b>
Foreign Language	Foreign Language		

Industry Based Certifications
TSTC Red Oak Program Completion Certification

Related CTE Elective Courses
<ul style="list-style-type: none"> <li>• None – no room in student schedule</li> </ul>

Program of Study Planning
<ul style="list-style-type: none"> <li>• To complete this Program of Study, a student must double down on English and Science credits their 10<sup>th</sup> grade year to make room for TSTC courses in the 11<sup>th</sup> and 12<sup>th</sup> grade.</li> <li>• A student must be positive that this Program of Study is what they wish to complete because of the differences in their English and Science courses taken and time devoted in their 11<sup>th</sup> and 12<sup>th</sup> grade years.</li> <li>• Students in this particular Program of Study will have no room for extracurricular activities, unless they speak individually with teachers, but those classes will not appear on their schedule.</li> </ul>