



## Transportation, Distribution & Logistics

The Transportation, Distribution, and Logistics Career Cluster focuses on careers in planning, management, and movement of people, materials, and goods by road, pipeline, air, rail, and water. It also includes related professional support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.



### Program of Study: Diesel, Heavy Equipment Maintenance, and Commercial Drivers (Dual Credit Program)

The Diesel, Heavy Equipment Maintenance, and Commercial Drivers program of study focuses on occupational and 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

9 <sup>th</sup> Grade	Principles of Transportation Systems
10 <sup>th</sup> Grade	Automotive Basics
11 <sup>th</sup> Grade	Diesel Equipment Technology I @ San Jacinto College
12 <sup>th</sup> Grade	Diesel Equipment Technology II @ San Jacinto College

#### Work-Based Learning/Expanded Learning Opportunities

Work-Based Learning Activities	<ul style="list-style-type: none"> <li>Shadow a diesel mechanic at a transportation company and learn to inspect and repair diesel equipment</li> <li>Intern at a transportation company, working closely with an industrial mechanic to diagnose issues with heavy equipment</li> </ul>
Expanded Learning Opportunities	SkillsUSA

#### Example 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

##### Additional Stackable IBCs/License

- Electronic Diesel Engine Diagnosis Specialist Certification (L2)

#### Example 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%



## Diesel, Heavy Equipment Maintenance, and Commercial Drivers Course Information

### Level 1

#### Principles of Transportation Systems

13039250

**Grade: 9-12**

**Credit: 1**

In Principles of Transportation Systems, students will gain knowledge and skills in the safe application, design, production, and assessment of products, services, and systems. This knowledge includes the history, laws and regulations, and common practices used in the transportation industry. Students should apply knowledge and skills in the application, design, and production of technology as it relates to the transportation industries. This course allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings.

### Level 2

#### Automotive Basics

13039550

**Grade: 10-12**

**Credit: 1**

Automotive Basics includes knowledge of the basic automotive systems and the theory and principles of the components that make up each system and how to service these systems. Automotive Basics includes applicable safety and environmental rules and regulations. In Automotive Basics, students will gain knowledge and skills in the repair, maintenance, and servicing of vehicle systems. This study allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. The focus of this course is to teach safety, tool identification, proper tool use, and employability.

#### Diesel Equipment Technology I @ San Jacinto College

13040150

**Grade: 11-12**

**Credit: 2**

*Prerequisite: Principles of Transportation Systems and meet the San Jacinto College entrance requirements*

Diesel Equipment Technology I includes knowledge of the function and maintenance of diesel systems. Rapid advances in diesel technology have created new career opportunities and demands in the transportation industry. This course provides the knowledge, skills, and technologies required for employment in transportation systems.

### Level 3

#### Diesel Equipment Technology II @ San Jacinto College

13040160

**Grade: 11-12**

**Credit: 2**

*Prerequisite: Diesel Equipment Technology I and meet the San Jacinto College entrance requirements*

Diesel Equipment Technology II includes knowledge of the function, diagnosis, and service of diesel equipment systems. Rapid advances in diesel technology have created new career opportunities and demands in the transportation industry. This course provides the advanced knowledge, skills, and technologies required for employment in transportation systems.