

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

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.

Secondary Courses for High School Credit

- Level 1**
 - Principles of Transportation Systems
 - Small Engine Technology I

- Level 2**
 - Introduction to Transportation Technology
 - Occupational Safety and Environmental Technology I
 - Diesel Equipment Technology I
 - Entrepreneurship I

- Level 3**
 - Diesel Equipment Technology II
 - Diesel Equipment Technology II + Advanced Transportation Systems Laboratory
 - Advanced Transportation Systems + Advanced Transportation Systems Laboratory (TBD)

- Level 4**
 - Practicum in Transportation Systems
 - Practicum in Transportation Systems + Extended Practicum in Transportation Systems
 - Practicum in Entrepreneurship
 - Practicum in Entrepreneurship + Extended Practicum in Entrepreneurship
 - Career Preparation for Programs of Study
 - Career Preparation for Programs of Study + Extended Career Preparation

Aligned Advanced Academic Courses

AP or IB	AP Physics 2: Algebra Based
Dual Credit	Dual credit offerings will vary by local education agency.

Students should be advised to consider these course opportunities to enrich their preparation. AP or IB courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards concentrator/completer status for this program of study.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	<ul style="list-style-type: none"> • Shadow a diesel mechanic at a transportation company and learn to inspect and repair diesel equipment • Intern at a transportation company, working closely with an industrial mechanic to diagnose issues with heavy equipment
Expanded Learning Opportunities	<ul style="list-style-type: none"> • Tour an original equipment manufacturer (OEM) facility • Participate in SkillsUSA

Aligned Industry-Based Certifications

- ASE Entry-Level Automobile Maintenance and Light Repair (MR)
- ASE Entry-Level Automobile Engine Performance (EP)
- ASE Entry-Level Automobile Engine Repair (ER)
- ASE Entry-Level Collision Non-Structural Analysis and Damage Repair (SR)
- ASE Entry-Level Collision Painting and Refinishing (PR)
- ASE Entry-Level Collision Structural Analysis and Damage Repair
- ASE Entry-Level Medium/Heavy Truck, Brakes (TB)
- ASE Entry-Level Medium/Heavy Truck, Diesel Engines (DE)
- ASE Entry-Level Medium/Heavy Truck, Electrical/Electronic Systems (TE)
- ASE Entry-Level Medium/Heavy Truck, Suspension and Steering (TS)
- ASE Refrigerant Recovery and Recycling
- Diesel Technology - Job Ready
- Heavy Equipment Maintenance and Repair - Job Ready
- Industrial Technology Maintenance (ITM) - Basic Pneumatic Systems
- Industrial Technology Maintenance (ITM) - Electrical Systems
- Industrial Technology Maintenance (ITM) - Maintenance Operations



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%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.





For more information visit:
<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources>

Transportation, Distribution, and Logistics Career Cluster
















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

Course Information


Level 1

Course	Prerequisites Corequisites	Career Clusters
Principles of Transportation Systems* 13039250 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Small Engine Technology I* 13040000 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

Level 2

Course	Prerequisites Corequisites	Career Clusters
Introduction to Transportation Technology* 13039270 (0.5 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Occupational Safety and Environmental Technology I* N1303680 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Transportation Systems, Principles of Distribution and Logistics, or Principles of Manufacturing Recommended Corequisites: None	  
Diesel Equipment Technology I 13040150 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Entrepreneurship I* 13011101 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Business, Marketing, and Finance Recommended Corequisites: None	         

Level 3

Course	Prerequisites Corequisites	Career Clusters
Diesel Equipment Technology II 13040160 (2 credits)	Prerequisites: Diesel Equipment Technology I Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

Continued on next page

* Indicates course is included in more than one program of study.



For additional information on the **Transportation, Distribution, and Logistics** career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>

Transportation, Distribution, and Logistics Career Cluster




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

Course Information

Level 3

Course	Prerequisites Corequisites	Career Clusters
Diesel Equipment Technology II + Advanced Transportation Systems Laboratory 13040170 (3 credits)	Prerequisites: Diesel Equipment Technology I Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Advanced Transportation Systems + Advanced Transportation Systems Laboratory* TBD (TBD credit)	Prerequisites: TBD Corequisites: TBD Recommended Prerequisites: TBD Recommended Corequisites: TBD	

Level 4

Course	Prerequisites Corequisites	Career Clusters
Practicum in Transportation Systems* First Time Taken: 13040450 (2 credits) Second Time Taken: 13040460 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Practicum in Transportation Systems + Extended Practicum in Transportation Systems* First Time Taken: 13040455 (3 credits) Second Time Taken: 13040465 (3 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Practicum in Entrepreneurship First Time Taken: 13011111 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Entrepreneurship I and II or successful completion of at least two courses in a CTE program of study Recommended Corequisites: None	

Continued on next page

* Indicates course is included in more than one program of study.

For additional information on the **Transportation, Distribution, and Logistics** career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>



Transportation, Distribution, and Logistics Career Cluster

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

Course Information

Level 4

Course	Prerequisites Corequisites	Career Clusters
Practicum in Entrepreneurship + Extended Practicum in Entrepreneurship* First Time Taken: 13011121 (3 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Entrepreneurship I and II or successful completion of at least two courses in a CTE program of study Recommended Corequisites: None	
Career Preparation for Programs of Study* First Time Taken: 12701121 (2 credits)	Prerequisites: At least one Level 2 or higher CTE course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Career Preparation for Programs of Study + Extended Career Preparation* First Time Taken: 12701141 (3 credits)	Prerequisites: : At least one Level 2 or higher CTE course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

* Indicates course is included in more than one program of study.

For additional information on the **Transportation, Distribution, and Logistics** career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>



[LEA name] does not discriminate on the basis of race, color, national origin, sex, or disability in its programs or activities and provides equal access to the Boy Scouts and other designated youth groups. The following person has been designated to handle inquiries regarding the nondiscrimination policies: [title], [address], [telephone number], [email]. Further nondiscrimination information can be found at [Notification of Nondiscrimination in Career and Technical Education Programs](#).

Diesel and Heavy Equipment Maintenance and Commercial Driver