



monarch

Curriculum Catalog

Career and Technical Education Series

Introduction to Careers in Transportation,
Distribution, and Logistics

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Introduction to Careers in Transportation, Distribution, and Logistics Course Overview

Transportation and Distribution Logistics is a course intended to introduce students to the complicated world of commercial transportation. This area of commerce is becoming increasingly complex and sophisticated, with work and career openings available at all levels of education. Most people, however, see only fragments of the big picture.

Transportation is among the most crucial and defining elements of modern commerce. The ability to move people and goods from place to place requires vast investments of technology, and of manpower. Without that investment almost all aspects of modern life would grind to a halt.

Objectives

- Describe the nature and scope of the Transportation, Distribution, and Logistics Career Cluster and the role of transportation, distribution, and logistics in society and the economy.
- Describe the application and use of new and emerging advanced techniques to provide solutions for transportation, distribution, and logistics problems.
- Describe the key operational activities required of successful transportation, distribution, and logistics facilities.
- Identify governmental policies and procedures for transportation, distribution, and logistics facilities.
- Describe transportation, distribution, and logistics employee rights, and responsibilities, and employers' obligations concerning occupational safety and health.
- Describe career opportunities and means to achieve those opportunities in each of the transportation, distribution, and logistics career pathways.
- Understand the strengths and weaknesses of the major modes of transportation, and the technological innovations that are occurring in each area.
- Learn about the role of governmental agencies and their impact on transportation systems.
- Analyze financial data to develop budgets, and determine profitability, cost reduction, and asset utilization.
- Identify the job requirements and aptitude needed to successfully pursue different career pathways in the TDL areas.

Unit 1: Transportation Overview	
Assignments	
1. Course Overview	10. The Regulatory and Competitive Environment for Transportation
2. Characteristics of Each Transportation Mode	11. Careers in Transportation That Move People
3. Project: Create a Shipping Plan	12. Project: Understanding Educational Requirements for Specific Jobs
4. A Brief History of Transportation, Logistics, and the Economic Environment	13. Quiz 2: Transportation of People and the Regulatory Environment
5. Careers in Transportation	14. Special Project*
6. Project: A Week in the Life of a Transportation Worker	15. Test
7. Quiz 1: Modes of Transportation	16. Course Project Part 1: What's Your Niche?*
8. Mass Transportation	17. Glossary and Credits
9. Project: FAA Guidelines for Pilots	

Unit 2: Distribution and Warehousing	
Intro. to Careers in Transportation, Distribution, and Logistics	Assignments
	1. The Roles of Distribution
	2. Project: Design a Distribution Center
	3. Warehouse Functions and Facilities Management
	4. Facility Layout and Equipment
	5. Project: Visit a Warehouse
	6. Quiz 1: Inside Distribution Centers and Warehouses
	7. Automation in Distribution
	8. Project: Create an Advertisement
	9. Managing Distribution Operations
	10. Careers in Distribution Center Management
	11. Project: Interview a Warehouse Employee
	12. Quiz 2: Roles and Responsibilities in the Distribution Center
	13. Special Project*
	14. Test
	15. Course Project Part 2: Your Team*
16. Glossary and Credits	

Unit 3: Transportation Systems, Infrastructure Planning, Management & Regulation	
Intro. to Careers in Transportation, Distribution, and Logistics	Assignments
	1. History of Transportation Systems in the United States
	2. Project: The Pony Express
	3. History of Transportation Systems in Europe
	4. Project: Early Transportation Systems
	5. History of Transportation in Asia
	6. Quiz 1: History of Transportation Systems
	7. Modern Transportation Infrastructure
	8. Project: Regulated Transportation Industries
	9. Transportation Planning and Regulation in the United States
	10. Careers in Transportation Planning and Regulation
	11. Project: Getting Around Your Community
	12. Quiz 2: Modern Transportation Infrastructure Management, Planning, and Regulation
	13. Special Project*
	14. Test
	15. Course Project Part 3: Job Descriptions*
16. Glossary and Credits	

Unit 4: Logistics & Logistics Services	
Intro. to Careers in Transportation, Distribution, and Logistics	Assignments
	1. Inventory Management
	2. Project: Design an Inventory Ordering System for Your Household
	3. Purchasing
	4. Reverse Logistics
	5. Project: Evaluate a Company's Reverse Logistics Policies
	6. Quiz 1: Logistics Functions (Other than Transportation and Distribution)
	7. Third- and Fourth-Party Logistics
	8. Logistics in the Military
	9. Project: United States Army Corps of Engineers: Their Contributions
	10. Careers in Logistics
	11. Project: You: The Logistician
	12. Quiz 2: Outsourced and Military Logistics, and Logistics Careers
	13. Special Project*
	14. Test
	15. Course Project Part 4: Getting the Right People in the Right Seat*
16. Glossary and Credits	

Unit 5: Future Trends in Transportation, Distribution & Logistics	
Intro. to Careers in Transportation, Distribution, and Logistics	Assignments
	1. Self-Driving Vehicles
	2. Project: Getting from Here to There without a Driver
	3. Drones
	4. Robots
	5. Project: Robotics in Our Future
	6. Quiz 1: Impact of Technology (Part 1)
	7. Radio Frequency Identification (RFID)
8. Project: The Evolution of RFID Technology	
9. Increased Supply Chain Visibility	
10. Project: The Science Behind the Technology	
11. The Rebirth of Manufacturing in the USA	
12. Quiz 2: Impact of Technology (Part 2)	
13. Special Project*	
14. Test	
15. Course Project Part 5: Building the Company*	
16. Glossary and Credits	

Unit 6: Course Project, Review, and Exam	
ICTDL	Assignments
	1. Course Project Part 6: You're in Business
	2. Review
	3. Exam

(*) Indicates alternative assignment