CareerClusters™ PATHWAYS TO COLLEGE & CAREER READINESS
Transportation, Distribution & Logistics

Learning that works for Colorado CTE®

Colorado CTE Course – Scope and Sequence

Course Name	**Principles of Transportation**	**Course Details** **Course = 0.50 Carnegie Unit Credit**	**Credit = 1.0 (Course may be delivered as a 0.5 credit without the delivery of pathway specific competency development.)**
Course Description	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.		
Note:	This is a suggested scope and sequence for the course content. The content will work with any textbook or instructional resource. If locally adapted, make sure all essential knowledge and skills are covered.		
SCED Identification #	20103	Schedule calculation based on 60 calendar days of a 90-day semester. Scope and sequence allows for additional time for guest speakers, student presentations, field trips, remediation, or other content topics.	

All courses taught in an approved CTE program must include Essential Skills embedded into the course content. The Essential Skills Framework for this course can be found at **https://www.cde.state.co.us/standardsandinstruction/essentialskills**

Instructional Unit Topic	Suggested Length of Instruction	CTE or Academic Standard Alignment	Competency / Performance Indicator	Outcome / Measurement	CTSO Integration
Careers in Transportation		Understand the nature and scope of the Transportation Career Cluster and the role transportation systems play in society and the economy. Understand the roles and responsibilities among trades and professions, including labor/management relationships. Evaluate a wide range of career pathway opportunities for success in transportation careers.	The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to: (A) identify career development and entrepreneurship opportunities related to transportation systems; (B) identify careers in transportation systems; and	Evaluate jobs data and employment projections in the construction industry from sources such as O*Net OnLine, synthesizing findings from each source. • Determine areas of largest growth within the transportation industry and discuss the significance of transportations systems to the national and global economy.	SkillsUSA Personal Skills SkillsUSA 4 Pillars Updates to Student ICAP

		Utilize the ability to locate, organize, analyze, apply and communicate information from multiple sources and perspectives.	(C) explore career goals, objectives, and strategies as part of a plan for future career opportunities. The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to: (A) discuss certification opportunities; (B) identify employers' expectations, appropriate work habits, ethical conduct, legal responsibilities, and good citizenship skills. The student develops leadership experience as it relates to transportation, distribution, and logistics systems. The student is expected to: (A) plan, propose, conduct, and evaluate industry-based occupational experiences; and (B) discuss youth leadership opportunities	• Report job requirements and characteristics for selected careers and compare personal interests and aptitudes with job requirements and characteristics of the career selected. Define employment expectations of entry-level employees in local employment situations (hiring requirements, basic job expectations, etc.) Explain roles and relationships of entities within the industry (i.e. relationships of unions, dealerships, shop owners, associations, ASE, DOT, FAA, OSHA, EPA, etc.) Demonstrate skills necessary to obtain employment: • Create an industry appropriate resume • Navigate online job posting tools and complete an employment application.	

			to create a well-rounded industry-based occupational experience.		
History of Transportation Systems		Understanding of the historical impact and significance of transportation systems and industries. Identify related terms and vocabulary associated with the field. Explore how transportation and issues related to transportation affect individuals and societies.	The student understands the historical, current, and future significance of the transportation, distribution, and logistic industries. The student is expected to: (A) define terms associated with the transportation industries; (B) identify the scope and effect on society of the transportation industries; and (C) identify significant historical and current developments in the transportation industries.	Explore, discuss, and describe how transportation and issues related to transportation affect individuals and societies. Create a timeline that identify historical events related to transportation.	
Current Issues in Transportation Systems		Explore how current events, laws, and public opinion affect transportation systems and industries. Explore how transportation can affect individuals and societies at local, state, national, and international levels. Identify CO Department of Transportation and CO Department of Revenue safety regulations related to the transportation industry, and explain the different	The student explains the transportation industries at the local, state, national, and international levels. The student is expected to: (A) identify the political impact of transportation; (B) review regulations and major laws and evaluate their impact on transportation; (C) read appropriate written material to stay	Investigate a transportation-related current issue or event. Analyze the issue or event by evaluating the following: • Political impacts of the issue/event • Economic impacts • Regulatory considerations • Research the topic for scientific data or conduct mock polls and/or use surveys to collect, present, and	

		types, requirements, and endorsements of CDLS.	abreast of current issues impacting transportation; and (D) collect public opinion and data in order to make informed decisions. The student examines CO Department of Transportation safety regulations as related to the transportation industry. The student is expected to: (A) discuss rules pertaining to obtaining a commercial driver license (CDL); (B) explain the different types of CDLs; (C) discuss the various endorsements available for a CDL; (D) discuss the requirements for each endorsement; (E) identify material handling and storage equipment and forklifts, including electric- and fuel-powered forklifts; and (F) identify types of transportation that	discuss public opinion data	

			supply warehouses and distribution centers.		
The Future of Transportation Systems		Explore how emerging technologies, environmental issues, international trade, globalization, employment issues, and safety could affect transportation systems in the future.	The student understands the historical, current, and future significance of the transportation industries. The student is expected to: (A) identify potential future development for transportation industry systems; (B) describe how emerging technologies and globalization impact the transportation industries; and (C) compare and contrast issues affecting the transportation industries such as international trade, employment, safety, environmental issues. The student explains the transportation industries at the local, state, national, and international levels. The student is expected to: (A) use critical-thinking skills to identify and organize alternatives and evaluate public policy	Create an infographic or presentation on potential future development scenarios, issues, and alternatives within the transportation industry. Discuss industry compliance with federal regulations concerning air quality and emission standards and present pro and con arguments concerning this issue.	

			issues related to transportation.		
Safety		Identify safety, personal and occupational health, emergency situations, response plans, and procedures, and rules and laws designed to promote safety and health in transportation environments. Understand and apply practices and procedures required to maintain jobsite safety. Recognize and employ universal transportation terminology, signs, and symbols to function safely in the workplace.	The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to: (A) demonstrate knowledge of personal and occupational health and safety; (B) discuss response plans to emergency situations; The student discusses methods to reduce workplace hazards in order to promote a safe working environment. The student is expected to: (A) discuss safe work practices and emergency procedures; (B) identify rules and laws designed to promote safety and health in transportation environments;	Demonstrate the proper use of safety equipment. Demonstrate basic first aid and/or CPR procedures. Evaluate a common health and safety workplace scenario and present a response plan to potential emergency situations.	

			(C) demonstrate first aid and cardiopulmonary resuscitation procedures; (D) demonstrate proper use of safety equipment; and (E) evaluate worksite safety areas and/or plans.		
Transportation Pathways Technical Competencies		Understand the technical skills competencies required for employees in the transportation pathways.	Students will be introduced to competencies found in one or more of the Transportation pathways: Aviation Operations and Mechanics, Collision Repair and Refinishing, Automotive Service and Repair, Diesel, Motorcycle and Power Sport, and Compact or Specialty Engine.	Students will demonstrate entry-level knowledge of mechanical systems or technical skill attainment according to the pathways covered. Refer to samples of competencies and outcome measurements from Transportation and Aviation Pathways level 1-2 courses.	
