## 2023 - 2024

# **PROGRAM GUIDE FOR:**

# TRANSPORTATION, DISTRIBUTION AND LOGISTICS CLUSTER



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#### Transportation, Distribution, and Logistics Cluster Program Guides

The Transportation, Distribution, and Logistics cluster includes specialty areas in automotive technology, aviation technology, collision repair, diesel technology, flight technology, and logistics. The curriculum is based on recognized industry and professional standards found in national organizations and federal regulations.

\*\*Courses highlighted in yellow are shared with other clusters. See "Shared Courses" table on page 4 for additional details.

Career Pathway Program	Automotive Technology Program  (Must teach three courses from this program list within two years)  The Automotive Technology Program is designed to equip students with basic knowledge and skills regarding safety, engine repair, automatic transmissions, and manual drive trains. A major focus of this course is system and component operations. Standards are designed to equip students to diagnose and repair engine performance related systems.			
Course Number	Career Pathway Program Courses	Career Readiness Indicator (CRI)	In Demand Occupations	
20104G1011 20104G1012 20104G1013 20104G1014 20104G1015 20104G1016 20104G1017 20997G1003 20997G1001 17049G1000	Automotive Technology Foundation Automotive Technology IA Automotive Technology IB Automotive Technology IC Automotive Technology IIA Automotive Technology IIB Automotive Technology IIC Career Pathway Project-Transportation, Distribution & Logistics CTE Lab in Transportation, Distribution & Logistics Safety and Health Regulations	Alabama Certified Employee (ACE)     ASE Entry-Level – Automobile –     Automotive Service Technology     ASE Entry-Level – Automobile –     Brakes     ASE Entry-Level – Automobile –     Electrical/Electronic Systems     ASE Entry-Level – Automobile –     Engine Performance     ASE Entry-Level – Automobile –     Engine Repair     ASE Entry-Level – Automobile –     Heating and Air Conditioning	<ul> <li>Automotive Service Technician</li> <li>Maintenance and Light Repair Technician</li> <li>Master Automotive Service Technician</li> </ul>	
		ASE Entry-Level – Automobile –     Maintenance and Light Repair     ASE Entry-Level – Automobile –     Manual Drive Train and Axles     ASE Entry-Level – Automobile –     Suspension and Steering     ASE Entry-Level – Automobile –     Automatic Transmission and Transaxle		

Career Pathway Program	Aviation Technology Program  (Must teach three courses from this program list within two years)  The Aviation Technology Program is designed to prepare students to continue their education in aviation technology at the college level. Students learn various skills including avionics, sheet metal, engine theory and much more. Careers related to aviation technology continue to rise each year.				
Course Number	Career Pathway Program Courses Career Readiness Indicator (CRI) In Demand Occupations				
20113G1014	Aircraft Electrical Components	Alabama Certified Employee (ACE)	Aircraft Mechanic		
20113G1003	Aircraft Engine & Propeller Theory and Operation	• FAA Part 107	Avionics Technician		
20113G1013	Aircraft Instruments and Avionics		Helicopter Mechanic		
20114G1002	Aircraft Non-Metallic Structures		_		
20114G1003	Aircraft Sheet Metal Structures				
20113G1001	Aircraft Theory of Flight and Operations				
20113G1012	Aircraft Turbine Engine				
20114G1001	Airframe Systems				
20997G1003	Career Pathway Project-Transportation,				
	Distribution & Logistics				
20997G1001	CTE Lab in Transportation, Distribution & Logistics				
20053G1001	Drone Technology				
17049G1000	Safety and Health Regulations				

	Collision Repair Program					
Career	(Must teach three courses from this program list within two years)					
Pathway	The Collision Repair Program is divided into two divisions, collision repair and refinishing. This program is designed to train students to					
Program	successfully repair accidental damage and to refinish vehicles. Emphasis is placed on safety, plasma arc cutting and oxyacetylene cutting, resistance					
C	type spot welding, and metal inert gas (MIG) welding.	I				
Course Number	Career Pathway Program Courses   Career Readiness Indicator (CRI)   In Demand Occupations					
	Canan Dathyyay Duaigat Transportation Distribution &	111 0 10 17 1 (107)	CH: DC: H: TI			
20997G1003	Career Pathway Project-Transportation, Distribution & Logistics	<ul> <li>Alabama Certified Employee (ACE)</li> <li>ASE Entry-Level – Collision –</li> </ul>	<ul> <li>Collision Refinishing Technician</li> <li>Manufacturing Assembly Specialist</li> </ul>			
20997G1001	CTE Lab in Transportation, Distribution & Logistics	Mechanical and Electrical Components	Manufacturing Finishing Specialist			
20116G1037	Damage Analysis, Estimating and Consumer Service	ASE Entry-Level – Collision – Non-      Nonstructural Repair Techn				
20105G1012	Mechanical and Electrical Components in Collision I	structural Analysis and Damage Repair	Structural Repair Technician			
20105G1022	Mechanical and Electrical Components in Collision II	ASE Entry-Level – Collision – Painting	Structurar repair Teenmeran			
20116G1035	Nonstructural Analysis and Damage Repair	and Refinishing				
20116G1036	Nonstructural Welding, Cutting, and Joining	ASE Entry-Level – Collision –				
20116G1013	Painting and Refinishing I	Structural Analysis and Damage Repair				
20116G1023	Painting and Refinishing II	ICAR Auto Refinish Platinum				
17049G1000	Safety and Health Regulations	ICAR Intro to Collision Repair				
20117G1003	Structural Analysis and Damage Repair	ICAR Non-Structural Platinum				

Career Pathway Program	Diesel Technology Program  (Must teach three courses from this program list within two years)  The Diesel Technology Program is designed for students to gain knowledge and experience related to servicing heavy equipment and medium/heavy duty trucks. Emphasis is placed on diesel engines, electrical, HVAC, hydraulics and preventative maintenance and light repair. All programs are ASE Education Foundation accredited and students are eligible to receive ASE credentials.		
Course Number	Career Pathway Program Courses	Career Readiness Indicator (CRI)	In Demand Occupations
20997G1003 20051G1001	Career Pathway Project-Transportation, Distribution & Logistics  Commercial Transportation	Alabama Certified Employee (ACE)     ASE Entry-Level – Medium/Heavy     Truck – Brakes	Diesel Truck Technician     Generator Service Technician     Heavy Equipment Technician
20997G1001 20107G1025	CTE Lab in Transportation, Distribution & Logistics Diesel Technology A	ASE Entry-Level – Medium/Heavy  Truck – Diesel Engines	• Heavy Equipment Technician
20107G1026 20107G1027 20107G1028	Diesel Technology B Diesel Technology C Diesel Technology D	ASE Entry-Level – Medium/Heavy     Truck – Electrical/Electronic Systems     ASE Entry-Level – Medium/Heavy	
17049G1000	Safety and Health Regulations	Truck – Inspection Maintenance and Minor Repair	
		ASE Entry-Level – Medium/Heavy     Truck – Suspension and Steering     Asphalt Roller – Skills for Success	
		Bulldozer – Skills for Success     CDL A – Skills for Success	
		CDL B – Skills for Success     CDL HazMat Endorsement – Skills for	
		Success  • CDL Passenger Endorsement – Skills for Success	
		• School Bus Endorsement – Skills for Success	

	Flight Technology Program				
Career	(Must teach three courses from this program list within two years)				
Pathway	The Flight Technology Program is designed to prepare stud	dents with knowledge related to flight operation	ions from preflight to post-flight procedures.		
Program	This program will include reading and interpreting up-to-d	ate weather reports, record flight paths, support	ort flight operations, and perform		
	calculations for fuel usage.				
Course	Concer Dethyery Ducanom Counges	Comes Deadiness Indicator (CDI)	In Domand Occupations		
Number	Career Pathway Program Courses	Career Readiness Indicator (CRI)	In Demand Occupations		
20113G1013	Aircraft Instruments and Avionics	Alabama Certified Employee (ACE)	Certified Flight Instructor		
20113G1001	Aircraft Theory of Flight and Operations	• FAA Part 107	Commercial Pilot Airplane		
20997G1003	Career Pathway Project-Transportation, Distribution &	11111111111111111	Commercial Pilot Helicopter		
	Logistics		Instrument Pilot Airplane Rating		
20997G1001	CTE Lab in Transportation, Distribution & Logistics		1 0		
20053G1001	Drone Technology	Instrument Pilot Helicopter Ra     Private Pilot Airplane			
20053G1012	Flight Communications				
20053G1011	Flight Navigation • Private Pilot Helicopter				
20053G1013	Flight Operations				
17049G1000	Safety and Health Regulations				

		Logistics Program			
Career	(Must teach three courses from this program list within two years)  The Logistics Program is designed to prepare students to equip students with knowledge and skills regarding the process of managing the flow of				
Pathway					
Program	goods through the supply chain from the point of origin to the destination. Standards are written for students to investigate trends in green logistics, various aspects of international environmental laws and requirements, e-commerce applications, and innovative technologies in logistics.				
C	various aspects of international environmental laws and re-	quirements, e-commerce applications, and ini	novative technologies in logistics.		
Course Number	Career Pathway Program Courses Career Readiness Indicator (CRI) In Demand Occupations				
20997G1003	Career Pathway Project-Transportation, Distribution &	Alabama Certified Employee (ACE)	Freight Agent		
	Logistics	CDL A – Skills for Success	Procurement Manager		
20051G1001	Commercial Transportation	CDL B – Skills for Success	Supply Chain Manager		
20997G1001	CTE Lab in Transportation, Distribution & Logistics	CDL Passenger Endorsement – Skills	Transportation Analyst		
20053G1001	Drone Technology	for Success  for Success  Warehouse Logistics Manage			
20152G1001	Foundations of Warehousing and Distribution	School Bus Endorsement – Skills for	Walenouse Eogisties Manager		
20152G1003	Global Logistics and Supply Chain Management	Success			
20152G1002	Industry Specific Logistics Processes	CDL HazMat Endorsement – Skills for			
20001G1010	Introduction to Logistics	Success			
17049G1000	Safety and Health Regulations	Skid Steer – Skills for Success			
		Bulldozer – Skills for Success			
		Asphalt Roller – Skills for Success			
		• FAA Part 107			
		MSSC Certified Logistics Associate			
		MSSC Certified Logistics Technician			

Career Pathway Program	SREB AC Global Logistics and Supply Chain Management Program (Must teach three courses from this program list within two years)  Global logistics and supply chain management connects internal functions of an organization with other institutions around the globe. It is vital to understand the roles of logistics and supply chain management in a global economy where individuals and organizations have access to markets across the world. This field requires critical thinking and problem-solving skills to coordinate the movement of goods and services that may be separated by a few feet or thousands of miles. In an industry always striving for optimization, decision-making skills are paramount.			
Course Number	Career Pathway Program Courses	Career Readiness Indicator (CRI)	Workforce Careers	
20997G1003	Career Pathway Project-Transportation, Distribution & Logistics	MSSC Certified Logistics Associate	Logistics Technician	
20997G1001	CTE Lab in Transportation, Distribution & Logistics	MSSC Certified Logistics Technician	Procurement Manager     Secondary Chairs Manager	
20199G1001	SREB Functional Areas in Logistics		Supply Chain Manager	
20199G1002	SREB Global Logistics Management			
20001G1002	SREB Introduction to Logistics			
20199G1003	SREB Logistics and Supply Chain Management			
17049G1000	Safety and Health Regulations			
utilizing any of the	must contact SREB for additional information prior to ne course codes listed above, as it does require commitment in a MOU and participation in mandatory training provided			

## <u>2023-2024 Subject and Personnel Codes</u> Transportation, Distribution, and Logistics Cluster

Transportation, Distribution, and Logistics Cluster Courses			
Course Number	Course Name	Course Number	Course Name
20113G1014	Aircraft Electrical Components	20107G1028	Diesel Technology D
20113G1003	Aircraft Engine & Propeller Theory	20053G1001	Drone Technology
20113G1013	Aircraft Instruments and Avionics	20053G1012	Flight Communications
20114G1002	Aircraft Non-Metallic Structures	20053G1011	Flight Navigation
20114G1003	Aircraft Sheet Metal Structures	20053G1013	Flight Operations
20113G1001	Aircraft Theory of Flight and Operation	20152G1001	Foundations of Warehousing and Distribution
20113G1012	Aircraft Turbine Engine	20152G1003	Global Logistics and Supply Chain Management
20114G1001	Airframe Systems	20152G1002	Industry Specific Logistics Processes
20104G1012	Automotive Technology IA	20001G1010	Introduction to Logistics
20104G1013	Automotive Technology IB	20105G1012	Mechanical and Electrical Components in Collision I
20104G1014	Automotive Technology IC	20105G1022	Mechanical and Electrical Components in Collision II
20104G1015	Automotive Technology IIA	20116G1035	Nonstructural Analysis and Damage Repair
20104G1016	Automotive Technology IIB	20116G1036	Nonstructural Welding, Cutting, and Joining
20104G1017	Automotive Technology IIC	20116G1013	Painting and Refinishing I
20104G1011	Automotive Technology Foundation	20116G1023	Painting and Refinishing II
20051G1001	Commercial Transportation	17049G1000	Safety and Health Regulations
20997G1001	CTE Lab in Transportation, Distribution & Logistics	20199G1001	SREB Functional Areas in Logistics
20997G1003	Career Pathway Project-Transportation,	20199G1002	SREB Global Logistics Management
	Distribution & Logistics		
20116G1037	Damage Analysis, Estimating and Consumer Service	20001G1002	SREB Introduction to Logistics
20107G1025	Diesel Technology A	20199G1003	SREB Logistics and Supply Chain Management
20107G1026	Diesel Technology B	20117G1003	Structural Analysis and Damage Repair
20107G1027	Diesel Technology C		

Shared Courses				
Course Number Course Name Cluster(s) Required Year Implement CO				
17049G1000	Safety and Health Regulations	Architecture and Construction Manufacturing	2022-2023	

# **College and Career Readiness Indicator Course Matrix**

Program Name	Automotive Technology	Aviation Technology	Collision Repair	Diesel Technology
Foundation Course(s)	Automotive Technology Foundation Safety and Health Regulations	Airframe Systems Safety and Health Regulations	Nonstructural Analysis and Damage Repair Safety and Health Regulations	Diesel Technology A Safety and Health Regulations
Concentrator Course(s)	Automotive Technology IA Automotive Technology IC Automotive Technology IIA Automotive Technology IIB Automotive Technology IIC	Aircraft Electrical Components Aircraft Engine & Propeller Theory and Operation Aircraft Instruments and Avionics Aircraft Non-Metallic Structures Aircraft Sheet Metal Structures Aircraft Theory of Flight and Operations Aviation Turbine Drone Technology	Damage Analysis, Estimating and Consumer Service  Mechanical and Electrical Components in Collision I  Mechanical and Electrical Components in Collision II  Nonstructural Welding, Cutting, and Joining  Painting and Refinishing I  Painting and Refinishing II  Structural Analysis and Damage Repair	Commercial Transportation Diesel Technology B Diesel Technology C Diesel Technology D
Capstone Course(s)	Career Pathway Project- Transportation, Distribution & Logistics CTE Lab in Transportation, Distribution & Logistics	Career Pathway Project- Transportation, Distribution & Logistics CTE Lab in Transportation, Distribution & Logistics	Career Pathway Project- Transportation, Distribution & Logistics CTE Lab in Transportation, Distribution & Logistics	Career Pathway Project- Transportation, Distribution & Logistics CTE Lab in Transportation, Distribution & Logistics

Program Name	Flight Technology	Logistics	SREB AC Global Logistics and Supply Chain Management Program
Foundation Course(s)	Aircraft Theory of Flight and Operations Safety and Health Regulations	Introduction to Logistics Safety and Health Regulations	Safety and Health Regulations
Concentrator Course(s)	Aircraft Instruments and Avionics Airframe Systems Drone Technology Flight Communications Flight Navigation Flight Operations	Commercial Transportation Drone Technology Foundations of Warehousing Global Logistics and Supply Chain Management Industry Specific Logistics Processes	SREB Functional Areas in Logistics SREB Global Logistics Management SREB Introduction to Logistics SREB Logistics and Supply Chain Management
Capstone Course(s)	Career Pathway Project- Transportation, Distribution & Logistics CTE Lab in Transportation, Distribution & Logistics	Career Pathway Project- Transportation, Distribution & Logistics CTE Lab in Transportation, Distribution & Logistics	Career Pathway Project- Transportation, Distribution & Logistics CTE Lab in Transportation, Distribution & Logistics

To meet the CCR Indicator as a CTE completer, a student must earn three (3.0) credits with the grade of a "C" or higher in CTE courses that are part of an approved CTE program of study. Additional requirements are outlined in Memorandum FY22-2065.

This matrix is intended for general guidance on the CCR completer status and is subject to change. For all CTE programming information, please refer to the CTE Cluster specific Program Guide. It contains a list of approved CTE programs, valid course numbers, required prerequisite courses, approved Career Readiness Indicators (CRIs) and in demand occupations.

<sup>\*</sup>Courses are listed in alphabetical order, not in sequential order.