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 highlig	hted in yellow are shared with other clusters. See "Shared C	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 student 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 IIA Automotive Technology IIB 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 – Heating and Air Conditioning 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 – Matter and Steering ASE Entry-Level – Automobile – Manual Drive Train and Axles 	 Automotive Service Technician Maintenance and Light Repair Technician Master Automotive Service Technician
	A vi	iation Technology Program	

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		

			11/14/2023
Career Pathway Program	Collision Repair Program (Must teach three courses from this program list within two years) The Collision Repair Program is divided into two divisions, collision repair and refinishing. This program is designed to train students to successfully repair accidental damage and to refinish vehicles. Emphasis is placed on safety, plasma arc cutting and oxyacetylene cutting, resistance type spot welding, and metal inert gas (MIG) welding.		
Course Number	Career Pathway Program Courses	Career Readiness Indicator (CRI)	In Demand Occupations
20997G1003 20997G1001 20116G1037 20105G1012 20105G1022 20116G1035 20116G1036 20116G103 20116G1023 17049G1000 20117G1003	Career Pathway Project-Transportation, Distribution & Logistics CTE Lab in Transportation, Distribution & Logistics Damage Analysis, Estimating and Consumer Service Mechanical and Electrical Components in Collision I Mechanical and Electrical Components in Collision II Nonstructural Analysis and Damage Repair Nonstructural Welding, Cutting, and Joining Painting and Refinishing I Painting and Refinishing II Safety and Health Regulations Structural Analysis and Damage Repair	 Alabama Certified Employee (ACE) ASE Entry-Level – Collision – Mechanical and Electrical Components ASE Entry-Level – Collision – Non- structural Analysis and Damage Repair ASE Entry-Level – Collision – Painting and Refinishing ASE Entry-Level – Collision – Structural Analysis and Damage Repair ICAR Auto Refinish Platinum ICAR Intro to Collision Repair 	 Collision Refinishing Technician Manufacturing Assembly Specialist Manufacturing Finishing Specialist Nonstructural Repair Technician Structural Repair Technician

Diesel Technology Program

Career Pathway 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 20097G1001 20107G1025 20107G1026 20107G1027 20107G1028 17049G1000	Career Pathway Project-Transportation, Distribution & Logistics Commercial Transportation CTE Lab in Transportation, Distribution & Logistics Diesel Technology A Diesel Technology B Diesel Technology C Diesel Technology D Safety and Health Regulations	 Alabama Certified Employee (ACE) ASE Entry-Level – Medium/Heavy Truck – Brakes ASE Entry-Level – Medium/Heavy Truck – Diesel Engines ASE Entry-Level – Medium/Heavy Truck – Electrical/Electronic Systems ASE Entry-Level – Medium/Heavy Truck – Inspection Maintenance and Minor Repair ASE Entry-Level – Medium/Heavy Truck – Suspension and Steering Asphalt Roller – Skills for Success CDL A – Skills for Success CDL HazMat Endorsement – Skills for Success CDL Passenger Endorsement – Skills for Success School Bus Endorsement – Skills for 	 Diesel Truck Technician Generator Service Technician Heavy Equipment Technician

	Flight Technology Program			
Career	(Must teach three courses from this program list within two years)			
Pathway	The Flight Technology Program is designed to prepare students with knowledge related to flight operations from preflight to post-flight procedures.			
Program	This program will include reading and interpreting up-to-d calculations for fuel usage.	This program will include reading and interpreting up-to-date weather reports, record flight paths, support flight operations, and perform calculations for fuel usage.		
Course				
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 &		Commercial Pilot Helicopter	
	Logistics		Instrument Pilot Airplane Rating	
20997G1001	CTE Lab in Transportation, Distribution & Logistics		 Instrument Pilot Helicopter Rating 	
20053G1001	Drone Technology		1 0	
20053G1012	Flight Communications		Private Pilot Airplane	
20053G1011	Flight Navigation		 Private Pilot Helicopter 	
20053G1013	Flight Operations			
17049G1000	Safety and Health Regulations			

Career Pathway	Logistics Program (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			
Program	goods through the supply chain from the point of origin to the destination. Standards are written for students to investigate trends in green logistic various aspects of international environmental laws and requirements, e-commerce applications, and innovative technologies in logistics.			
Course Number	Career Pathway Program Courses	Career Readiness Indicator (CRI)	In Demand Occupations	
20997G1003	Career Pathway Project-Transportation, Distribution & Logistics	 Alabama Certified Employee (ACE) CDL A – Skills for Success 	Freight AgentProcurement Manager	
20051G1001	Commercial Transportation CTE Lab in Transportation, Distribution & Logistics	 CDL B – Skills for Success 	 Supply Chain Manager 	
20997G1001	Drone Technology	 CDL Passenger Endorsement – Skills 	 Transportation Analyst 	
20053G1001 20152G1001	Foundations of Warehousing and Distribution	for Success	 Warehouse Logistics Manager 	
20152G1001	Global Logistics and Supply Chain Management	• School Bus Endorsement – Skills for		
20152G1003	Industry Specific Logistics Processes	Success		
20001G1010	Introduction to Logistics	CDL HazMat Endorsement – Skills for 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		nent in a global economy where individuals a roblem-solving skills to coordinate the mover	to years) institutions around the globe. It is vital to nd organizations have access to markets nent of goods and services that may be	
Course Number	Career Pathway Program Courses	Career Readiness Indicator (CRI)	Workforce Careers	
20997G1003	Career Pathway Project-Transportation, Distribution & Logistics	 MSSC Certified Logistics Associate MSSC Certified Logistics Technician 	Logistics TechnicianProcurement Manager	
20997G1001	CTE Lab in Transportation, Distribution & Logistics	- Mase certified Logistics recificial	 Procurement Manager Supply Chain Manager 	
20199G1001	SREB Functional Areas in Logistics		- Suppry Cham 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 he 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 to Implement COS
17049G1000	Safety and Health Regulations	Architecture and Construction Manufacturing	2022-2023

Program Name	Automotive Technology	Aviation Technology	Collision Repair	Diesel Technology
Foundation Course(s) Concentrator Course(s)	Automotive Technology FoundationSafety and Health RegulationsAutomotive Technology IA Automotive Technology IB	Airframe Systems Safety and Health Regulations Aircraft Electrical Components Aircraft Engine & Propeller	Nonstructural Analysis and Damage Repair Safety and Health Regulations Damage Analysis, Estimating and Consumer Service	Diesel Technology A Safety and Health Regulations Commercial Transportation Diesel Technology B
	Automotive Technology IC Automotive Technology IIA Automotive Technology IIB Automotive Technology IIC	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	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	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

College and Career Readiness Indicator Course Matrix

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 <u>Memorandum FY22-2065</u>.

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.

*Courses are listed in alphabetical order, not in sequential order.