



2022 – 2023

**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 aviation, power equipment, automotive service, automotive collision repair, diesel engine maintenance and repair, logistics, and marine technology. 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.**

Automotive Services Program			
(Must teach three courses from this program list within two years)			
The need for automotive service technicians is growing rapidly as people continue to keep their vehicles in operation longer than ever before. This program is designed for students to gain knowledge and credentials for entry level employment or to continue their education through college. This program is divided into three levels: Maintenance and Light Repair, Automotive Service Technicians, and Master Service Technicians. All programs are ASE Education Foundation accredited and students are eligible to receive ASE credentials.			
Career Pathway Program			
Course Number	Career Pathway Program Courses	Career Readiness Indicator (CRI)	Workforce Careers
20104G1005	Automotive Service Technology A	<ul style="list-style-type: none"> • Alabama Certified Worker (Ready to Work) • ASE Entry-Level - Automobile - Maintenance and Light Repair • ASE Entry-Level - Automobile - Suspension and Steering • 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 - Automatic Transmission and Transaxle • ASE Entry-Level - Automobile - Heating and Air Conditioning • ASE Entry-Level - Automobile - Manual Drive Train and Axles • ASE Entry-Level - Automobile - Automobile Service Technology 	<ul style="list-style-type: none"> • Maintenance and Light Repair Technician • Automotive Service Technician • Master Automotive Service Technician
20104G1006	Automotive Service Technology B		
20104G1007	Automotive Service Technology C		
20104G1008	Automotive Service Technology D		
20997G1001	CTE Lab in Transportation, Distribution & Logistics		
20104G1001	Maintenance and Light Repair A		
20104G1002	Maintenance and Light Repair B		
20104G1003	Maintenance and Light Repair C		
20104G1004	Maintenance and Light Repair D		
20104G1009	Master Automotive Service Technology		
17049G1000	Safety and Health Regulations		
20997G1002	Senior Career Pathway Project-Transportation, Distribution & Logistics		
20001G1001	Transportation, Distribution, and Logistics		

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.			
Career Pathway Program			
Course Number	Career Pathway Program Courses	Career Readiness Indicator (CRI)	Workforce Careers
20114G1001	Airframe Systems	<ul style="list-style-type: none"> • Alabama Certified Worker (Ready to Work) 	<ul style="list-style-type: none"> • Aircraft Mechanic • Avionics Technician • Helicopter Mechanic
20113G1003	Aircraft Engine & Propeller Theory and Operation		
20114G1002	Aircraft Non-Metallic Structures		
20114G1003	Aircraft Sheet Metal Structures		
20113G1001	Aircraft Theory of Flight and Operation		
20113G1002	Aviation Turbine Engine Theory and Inspections		
20997G1001	CTE Lab in Transportation, Distribution & Logistics		
17049G1000	Safety and Health Regulations		
20997G1002	Senior Career Pathway Project-Transportation, Distribution & Logistics		
20001G1001	Transportation, Distribution, and Logistics		

Collision Repair Program (Must teach three courses from this program list within two years)			
Career Pathway Program	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. This course incorporates all personal and environmental safety practices associated with clothing; respiratory protection; eye protection; tools; power equipment; proper ventilation; and the handling, storage, and disposal of chemicals and materials in accordance with local, state, and federal safety and environmental regulations. Refinishing skills learned in this program may also carry over into many other industries through manufacturing finishing of products. All programs are ASE Education Foundation accredited and students are eligible to receive ASE credentials. ICAR curriculum and credentials are being utilized in many programs.		
Course Number	Career Pathway Program Courses	Career Readiness Indicator (CRI)	Workforce Careers
20117G1004	Collision Repair-Metal Welding and Cutting	<ul style="list-style-type: none"> • Alabama Certified Worker (Ready to Work) • ASE Entry-Level - Collision -Painting and Refinishing • ASE Entry-Level - Collision - Non-structural Analysis and Damage Repair • ASE Entry-Level - Collision - Mechanical and Electrical Components • ASE Entry-Level - Collision - Structural Analysis and Damage Repair • ICAR Auto Refinish Platinum • ICAR Intro to Collision Repair • ICAR Non-Structural Platinum 	<ul style="list-style-type: none"> • Collision Refinishing Technician • Structural Repair Technician • Nonstructural Repair Technician • Manufacturing Assembly Specialist • Manufacturing Finishing Specialist
20997G1001	CTE Lab in Transportation, Distribution & Logistics		
20116G1001	Introduction to Collision Repair		
20105G1012	Mechanical and Electrical Components I		
20105G1022	Mechanical and Electrical Components II		
20117G1012	Nonstructural Analysis and Damage Repair I		
20117G1022	Nonstructural Analysis and Damage Repair II		
20117G1001	Nonstructural Technician A		
20117G1002	Nonstructural Technician B		
20116G1013	Painting and Refinishing I		
20116G1023	Painting and Refinishing II		
20116G1033	Painting and Refinishing III		
20116G1002	Refinishing Technician A		
20116G1003	Refinishing Technician B		
20116G1004	Refinishing Technician C		
17049G1000	Safety and Health Regulations		
20997G1002	Senior Career Pathway Project-Transportation, Distribution & Logistics		
20117G1003	Structural Analysis and Damage Repair		
20001G1001	Transportation, Distribution, and Logistics		

Diesel Technology Program (Must teach three courses from this program list within two years)			
Career Pathway Program	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)	Workforce Careers
20997G1001	CTE Lab in Transportation, Distribution & Logistics	<ul style="list-style-type: none"> • Alabama Certified Worker (Ready to Work) • ASE Entry-Level - Medium/Heavy Truck – Brakes • ASE Entry-Level - Medium/Heavy Truck - Suspension and Steering • 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 	<ul style="list-style-type: none"> • Diesel Truck Technician • Heavy Equipment Technician • Generator Service Technician
20108G1004	Diesel Brakes		
20108G1001	Diesel Drive Train		
20108G1002	Diesel Electrical and Electronic Systems I		
20108G1003	Diesel Electrical and Electronic Systems II		
20107G1012	Diesel Engines I		
20107G1022	Diesel Engines II		
20108G1006	Diesel Hydraulics		
20108G1007	Diesel HVAC		
20107G1001	Diesel Preventative, Maintenance, and Inspection (PMI)		
20108G1005	Diesel Suspension and Steering		
17049G1000	Safety and Health Regulations		
20997G1002	Senior Career Pathway Project-Transportation, Distribution & Logistics		
20001G1001	Transportation, Distribution, and Logistics		

Power Equipment Program (Must teach three courses from this program list within two years)			
The Power Equipment program is designed to prepare students for entry-level employment or advanced training in the power mechanics' field. Topics include career opportunities, safety, tools, hydraulics, pneumatics, drivetrains, control systems, starters, and preventive maintenance.			
Course Number	Career Pathway Program Courses	Career Readiness Indicator (CRI)	Workforce Careers
20997G1001	CTE Lab in Transportation, Distribution & Logistics	<ul style="list-style-type: none"> • Alabama Certified Worker (Ready to Work) • Briggs and Stratton Technician- Two of the following areas REQUIRED: <ul style="list-style-type: none"> -Theory of Operation -Carburetors and Fuel Systems -Governors -Compression -Ignition Systems • Equipment Engine Training Council Two Stroke Engine • Equipment Engine Training Council Four Stroke Engine • Equipment Engine Training Council Driveline/Hydraulics • Equipment Engine Training Council Generator • Equipment Engine Training Council Compact Diesel Engine • Equipment Engine Training Council OPE Electrical 	<ul style="list-style-type: none"> • Small Engine Technician • Motorcycle Technician • Small Engine Assembly Specialist
18449G1002	Power Equipment Technology		
20110G1003	Residential and Commercial Power Equipment		
17049G1000	Safety and Health Regulations		
20997G1002	Senior Career Pathway Project-Transportation, Distribution & Logistics		
20001G1001	Transportation, Distribution, and Logistics		

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
20997G1001	CTE Lab in Transportation, Distribution & Logistics	<ul style="list-style-type: none"> • MSSC Certified Logistics Associate • MSSC Certified Logistics Technician 	<ul style="list-style-type: none"> • Logistics Technician
20199G1001	Functional Areas in Logistics		
20199G1002	Global Logistics Management		
20001G1002	Introduction to Logistics		
20199G1003	Logistics and Supply Chain Management		
17049G1000	Safety and Health Regulations		
20997G1002	Senior Career Pathway Project-Transportation, Distribution & Logistics		
20001G1001	Transportation, Distribution, and Logistics		

2022-2023 Subject and Personnel Codes
Transportation, Distribution, and Logistics Cluster

Course Number	Course Name	Course Number	Course Name
20113G1003	Aircraft Engine & Propeller Theory and Operation	20199G1003	Logistics and Supply Chain Management
20114G1002	Aircraft Non-Metallic Structures	20104G1001	Maintenance and Light Repair A
20114G1003	Aircraft Sheet Metal Structures	20104G1002	Maintenance and Light Repair B
20113G1001	Aircraft Theory of Flight and Operation	20104G1003	Maintenance and Light Repair C
20114G1001	Airframe Systems	20104G1004	Maintenance and Light Repair D
20104G1005	Automotive Service Technology A	20104G1009	Master Automotive Service Technology
20104G1006	Automotive Service Technology B	20105G1012	Mechanical and Electrical Components I
20104G1007	Automotive Service Technology C	20105G1022	Mechanical and Electrical Components II
20104G1008	Automotive Service Technology D	20117G1012	Nonstructural Analysis and Damage Repair I
20113G1002	Aviation Turbine Engine Theory and Inspections	20117G1022	Nonstructural Analysis and Damage Repair II
20117G1004	Collision Repair-Metal Welding and Cutting	20117G1001	Nonstructural Technician A
20997G1001	CTE Lab in Transportation, Distribution & Logistics	20117G1002	Nonstructural Technician B
20108G1004	Diesel Brakes	20116G1013	Painting and Refinishing I
20108G1001	Diesel Drive Train	20116G1023	Painting and Refinishing II
20108G1002	Diesel Electrical and Electronic Systems I	20116G1033	Painting and Refinishing III
20108G1003	Diesel Electrical and Electronic Systems II	18449G1002	Power Equipment Technology
20107G1012	Diesel Engines I	20116G1002	Refinishing Technician A
20107G1022	Diesel Engines II	20116G1003	Refinishing Technician B
20108G1006	Diesel Hydraulics	20116G1004	Refinishing Technician C
20108G1007	Diesel HVAC	20110G1003	Residential and Commercial Power Equipment
20107G1001	Diesel Preventative, Maintenance, and Inspection (PMI)	17049G1000	Safety and Health Regulations
20108G1005	Diesel Suspension and Steering	20997G1002	Senior Career Pathway Project-Transportation, Distribution & Logistics
20199G1001	Functional Areas in Logistics	20117G1003	Structural Analysis and Damage Repair
20199G1002	Global Logistics Management	20001G1001	Transportation, Distribution, and Logistics
20116G1001	Introduction to Collision Repair	18449G1001	Two- and Four-Stroke Engines
20001G1002	Introduction to Logistics		

Shared Courses

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

General Note: Course descriptions and content standards for most courses are located on the Alabama Department of Education website at:
<https://www.alabamaachievers.org/career-and-technical-education/cte-courses-of-study/>.