Course Description:
The Logistics Fundamentals course is the foundational course for the Distribution and Logistics pathway. Employment opportunities in the transportation, distribution, and logistics fields will be explored. In this course the student will be exposed to all areas of distribution and logistics. Basic skills in all of the above mentioned areas will be taught. Pre-requisite for this course is advisor approval.

Course Standard 1
TDL-LF-1
The following standard is included in all CTAE courses adopted for the Career Cluster/Pathways. Teachers should incorporate the elements of this standard into lesson plans during the course. The topics listed for each element of the standard may be addressed in differentiated instruction matching the content of each course. These elements may also be addressed with specific lessons from a variety of resources. This content is not to be treated as a unit or separate body of knowledge but rather integrated into class activities as applications of the concept.

Standard: Demonstrate employability skills required by business and industry.
The following elements should be integrated throughout the content of this course.

### 1.1 Communicate effectively through writing, speaking, listening, reading, and interpersonal abilities.

<table>
<thead>
<tr>
<th>Person-to-Person Etiquette</th>
<th>Telephone and Email Etiquette</th>
<th>Cell Phone and Internet Etiquette</th>
<th>Communicating At Work</th>
<th>Listening</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interacting with Your Boss</td>
<td>Telephone Conversations</td>
<td>Using Blogs</td>
<td>Improving Communication Skills</td>
<td>Reasons, Benefits, and Barriers</td>
</tr>
<tr>
<td>Interacting with Subordinates</td>
<td>Barriers to Phone conversations</td>
<td>Using Social Media</td>
<td>Effective Oral Communication</td>
<td>Listening Strategies</td>
</tr>
<tr>
<td>Interacting with Co-workers</td>
<td>Making and Returning Calls</td>
<td>Effective Written Communication</td>
<td>Ways We Filter What We Hear</td>
<td></td>
</tr>
<tr>
<td>Interacting with Suppliers</td>
<td>Making Cold Calls</td>
<td>Effective Nonverbal Skills</td>
<td>Developing a Listening Attitude</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Handling Conference Calls</td>
<td>Effective Word Use</td>
<td>Show You Are Listening</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Handling Unsolicited Calls</td>
<td>Giving and Receiving Feedback</td>
<td>Asking Questions</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Obtaining Feedback</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Getting Others to Listen</td>
<td></td>
</tr>
</tbody>
</table>

### Nonverbal Communication

<table>
<thead>
<tr>
<th>Written Communication</th>
<th>Speaking</th>
<th>Applications and Effective Résumés</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicating Nonverbally</td>
<td>Writing Documents</td>
<td>Using Language Carefully</td>
</tr>
<tr>
<td>Reading Body Language and mixed Messages</td>
<td>Constructive Criticism in Writing</td>
<td>One-on-One Conversations</td>
</tr>
<tr>
<td>Matching Verbal and Nonverbal communication</td>
<td>Small Group Communication</td>
<td>Things to Include in a Résumé</td>
</tr>
</tbody>
</table>
### 1.2 Demonstrate creativity by asking challenging questions and applying innovative procedures and methods.

<table>
<thead>
<tr>
<th>Teamwork and Problem Solving</th>
<th>Meeting Etiquette</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thinking Creatively</td>
<td>Preparation and Participation in Meetings</td>
</tr>
<tr>
<td>Taking Risks</td>
<td>Conducting Two-Person or Large Group Meetings</td>
</tr>
<tr>
<td>Building Team Communication</td>
<td>Inviting and Introducing Speakers</td>
</tr>
<tr>
<td></td>
<td>Facilitating Discussions and Closing</td>
</tr>
<tr>
<td></td>
<td>Preparing Visual Aids</td>
</tr>
<tr>
<td></td>
<td>Virtual Meetings</td>
</tr>
</tbody>
</table>

### 1.3 Exhibit critical thinking and problem solving skills to locate, analyze and apply information in career planning and employment situations.

<table>
<thead>
<tr>
<th>Problem Solving</th>
<th>Customer Service</th>
<th>The Application Process</th>
<th>Interviewing Skills</th>
<th>Finding the Right Job</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transferable Job Skills</td>
<td>Gaining Trust and Interacting with Customers</td>
<td>Providing Information, Accuracy and Double Checking</td>
<td>Preparing for an Interview</td>
<td>Locating Jobs and Networking</td>
</tr>
<tr>
<td>Becoming a Problem Solver</td>
<td>Learning and Giving Customers What They Want</td>
<td>Online Application Process</td>
<td>Questions to Ask in an Interview</td>
<td>Job Shopping Online</td>
</tr>
<tr>
<td>Identifying a Problem</td>
<td>Keeping Customers Coming Back</td>
<td>Following Up After Submitting an Application</td>
<td>Things to Include in a Career Portfolio</td>
<td>Job Search Websites</td>
</tr>
<tr>
<td>Becoming a Critical Thinker</td>
<td>Seeing the Customer’s Point</td>
<td>Effective Résumés:</td>
<td>Traits Employers are Seeking</td>
<td>Participation in Job Fairs</td>
</tr>
<tr>
<td>Managing</td>
<td>Selling Yourself and the Company</td>
<td>Matching Your Talents to a Job</td>
<td>Considerations Before Taking a Job</td>
<td>Searching the Classified Ads</td>
</tr>
<tr>
<td>Handling Customer Complaints</td>
<td>When a Résumé Should be Used</td>
<td></td>
<td></td>
<td>Using Employment Agencies</td>
</tr>
<tr>
<td>Strategies for Customer Service</td>
<td></td>
<td></td>
<td></td>
<td>Landing an Internship</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Staying Motivated to Search</td>
</tr>
</tbody>
</table>

### 1.4 Model work readiness traits required for success in the workplace including integrity, honesty, accountability, punctuality, time management, and respect for diversity.

<table>
<thead>
<tr>
<th>Workplace Ethics</th>
<th>Personal Characteristics</th>
<th>Employer Expectations</th>
<th>Business Etiquette</th>
<th>Communicating at Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrating Good Work Ethic</td>
<td>Demonstrating a Good Attitude</td>
<td>Behaviors Employers Expect</td>
<td>Language and Behavior</td>
<td>Handling Anger</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Behaving Appropriately</td>
<td>Gaining and Showing Respect</td>
<td>Objectionable Behaviors</td>
<td>Keeping Information Confidential</td>
<td>Dealing with Difficult Coworkers</td>
</tr>
<tr>
<td>Maintaining Honesty</td>
<td>Demonstrating Responsibility</td>
<td>Establishing Credibility</td>
<td>Avoiding Gossip</td>
<td>Dealing with a Difficult Boss</td>
</tr>
</tbody>
</table>
1.5 **Apply the appropriate skill sets to be productive in a changing, technological, diverse workplace to be able to work independently and apply team work skills.**

<table>
<thead>
<tr>
<th>Expected Work Traits</th>
<th>Teamwork</th>
<th>Time Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrating Responsibility</td>
<td>Teamwork Skills</td>
<td>Managing Time</td>
</tr>
<tr>
<td>Dealing with Information Overload</td>
<td>Reasons Companies Use Teams</td>
<td>Putting First Things First</td>
</tr>
<tr>
<td>Transferable Job Skills</td>
<td>Decisions Teams Make</td>
<td>Juggling Many Priorities</td>
</tr>
<tr>
<td>Managing Change</td>
<td>Team Responsibilities</td>
<td>Overcoming Procrastination</td>
</tr>
<tr>
<td>Adopting a New Technology</td>
<td>Problems That Affect Teams</td>
<td>Organizing Workspace and Tasks</td>
</tr>
<tr>
<td></td>
<td>Expressing Yourself on a Team</td>
<td>Staying Organized</td>
</tr>
<tr>
<td></td>
<td>Giving and Receiving Constructive</td>
<td>Finding More Time</td>
</tr>
<tr>
<td></td>
<td>Criticism</td>
<td></td>
</tr>
</tbody>
</table>

1.6 **Present a professional image through appearance, behavior and language.**

<table>
<thead>
<tr>
<th>On-the-Job Etiquette</th>
<th>Person-to-Person Etiquette</th>
<th>Communication Etiquette</th>
<th>Presenting Yourself</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using Professional Manners</td>
<td>Meeting Business Acquaintances</td>
<td>Creating a Good Impression</td>
<td>Looking Professional</td>
</tr>
<tr>
<td>Introducing People</td>
<td>Meeting People for the First Time</td>
<td>Keeping Phone Calls</td>
<td>Dressing for Success</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Professional</td>
<td></td>
</tr>
<tr>
<td>Appropriate Dress</td>
<td>Showing Politeness</td>
<td>Proper Use of Work Email</td>
<td>Showing a Professional Attitude</td>
</tr>
<tr>
<td>Business Meal Functions</td>
<td></td>
<td>Proper Use of Cell Phone</td>
<td>Using Good Posture</td>
</tr>
<tr>
<td>Behavior at Work Parties</td>
<td></td>
<td>Proper Use in Texting</td>
<td>Presenting Yourself to</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Associates</td>
</tr>
<tr>
<td>Behavior at Conventions</td>
<td></td>
<td></td>
<td>Accepting Criticism</td>
</tr>
<tr>
<td>International Etiquette</td>
<td></td>
<td></td>
<td>Demonstrating Leadership</td>
</tr>
<tr>
<td>Cross-Cultural Etiquette</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Working in a Cubicle</td>
<td></td>
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</tr>
</tbody>
</table>

**Support of CTAE Foundation Course Standards and Georgia Standards of Excellence L9-10RST 1-10 and L9-10WHST 1-10:**

Georgia Standards of Excellence ELA/Literacy standards have been written specifically for technical subjects and have been adopted as part of the official standards for all CTAE courses. Additional Georgia Standards of Excellence ELA/Literacy standards for Speaking and Listening are listed in the foundational course standards below.
Course Standard 2

TDL-LF-2
Identify safety and health procedures utilized in the classroom/lab environment.

2.1 Identify location of safety and first aid equipment.
2.2 Identify procedures for emergency situations.
2.3 Research and identify types of hazardous materials.
2.4 Identify procedures for handling hazardous and combustible materials (MSDS and OSHA).
2.5 Explain Right to Know.
2.6 Describe the Occupational Safety and Health Administration (OSHA), Environmental Protection Agency (EPA), Nuclear Regulatory Commission (NRC), U.S. Department of Transportation (DOT), and Federal Aviation Administration (FAA).
2.7 Explain the characteristics of a safe, clean, and orderly work environment, including hazard analysis, correcting hazards, environmental inspections, effective reporting of incidents and accidents, and a well-designed workplace environment.
2.8 Describe proper personal protective equipment needed in the warehouse environment.
2.9 Read and interpret equipment operating instructions.

Support of CTAE Foundation Course Standards and Georgia Standards of Excellence

ELACC9-10SL1: Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.

ELACC9-10SL4: Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.

Course Standard 3

TDL-LF-3
Explain the role economics plays in logistics and supply chain management.

3.1 Explain the concept and the components of a global economy.
3.2 Define wants, needs, exchanges, scarcity, economic costs, competition, price, and non-price competition.
3.3 Differentiate between the factors of production.
3.4 Define the Law of Supply and the Law of Demand.
3.5 Illustrate on a graph how supply and demand determine equilibrium price and quantity.

Support of CTAE Foundation Course Standards and Georgia Standards of Excellence

ELACC9-10SL1: Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.

ELACC9-10SL4: Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.
Course Standard 4

TDL-LF-4

Acquire an understanding of logistics and supply chain management.

4.1 Discuss the history and evolution of logistics and supply chain management.
4.2 Define terms related to the logistics and supply chain industry, including logistics, supply chain management, goods, services, e-commerce, customer service, quality control, material handling, and information technology.
4.3 Categorize stakeholders in a typical supply chain.
4.4 Describe the role of Third Party Logistics (3PL) providers.
4.5 Describe the role of freight forwarders.
4.6 Understand bar codes and QR codes and their role in the supply chain.

Support of CTAE Foundation Course Standards and Georgia Standards of Excellence

ELACC9-10SL1: Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.

ELACC9-10SL4: Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.

Course Standard 5

TDL-LF-5

Investigate the motor carrier industry relating to logistics and supply chain management.

5.1 Chart the history and development of the motor carrier industry.
5.2 Differentiate between for hire and private carriers.
5.3 Differentiate between truckload (TL) and less-than-truckload (LTL) carriers.
5.4 Create an organizational chart of the motor carrier industry by class of carrier.
5.5 Discuss the types of equipment used in the motor carrier industry (tractors and trailers).
5.6 Research the cost of operating a tractor-trailer.
5.7 Explain the advantages and disadvantages of choosing a motor carrier to ship materials.
5.8 Relate the role of a third party logistics (3PL) provider to the motor carrier industry.
5.9 Discuss how technology is used in the motor carrier industry, including Automatic Vehicle Location, Computer Aided Routing and Dispatch, Onboard Computers, Diagnostic and Maintenance Support Systems, Automatic Vehicle/Equipment Identification, and Collision Warning Systems.
5.10 Investigate safety and compliance issues on the Federal Motor Carrier Safety Administration website.
5.11 Compare and contrast careers in the motor carrier industry, along with their education, training requirements, salary ranges, and job openings.

Support of CTAE Foundation Course Standards and Georgia Standards of Excellence

ELACC9-10SL1: Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.

ELACC9-10SL4: Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.
ELACC9-10SL5: Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.

Course Standard 6

TDL-LF-6

Investigate the railroad industry relating to logistics and supply chain management.

6.1 Chart the history and development of the railroad industry.
6.2 Differentiate between Class I and Class II railroads.
6.3 Explain the basic unit of measure of freight handling used by railroads.
6.4 Discuss the types of equipment (freight cars) used in the railroad industry.
6.5 Create a chart of the types of equipment used by the industry.
6.6 Explain the advantages and disadvantages of choosing a railroad to ship materials.
6.7 Discuss how technology is used in the railroad industry, including Advanced Train Control Systems, Rail Yard Control, Communications and Signaling, Customer Service, and Radio Frequency Identification.
6.8 Compare and contrast careers in the railroad industry, along with their education, training requirements, salary ranges, and job openings.

Support of CTAE Foundation Course Standards and Georgia Standards of Excellence

ELACC9-10SL1: Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.

ELACC9-10SL4: Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.

ELACC9-10SL5: Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.

Course Standard 7

TDL-LF-7

Investigate the airline industry relating to logistics and supply chain management.

7.1 Chart the history and development of the airline industry as it relates to logistics and supply chain management.
7.2 Differentiate between types of carriers, including freight carriers, combination carriers, and integrators.
7.3 Describe the Unit Load Device as it relates to the airline industry.
7.4 Compare and contrast cargo aircraft specifications.
7.5 Create a chart of the types of aircraft used in the airline industry.
7.6 Explain the advantages and disadvantages of choosing an airline to ship materials.
7.7 Compare and contrast careers in the airline industry, along with their education, training requirements, salary ranges, and job openings.

Support of CTAE Foundation Course Standards and Georgia Standards of Excellence

ELACC9-10SL5: Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.
Course Standard 8

TDL-LF-8
Investigate the ocean carrier industry relating to logistics and supply chain management.

8.1 Chart the history and development of the ocean carrier industry and the history of containerization as it relates to logistics and supply chain management.

8.2 Define terms related to the ocean carrier industry including place of receipt, port of load, port of discharge, place of final destination, bill of lading, letter of credit, terms of sale, tariff, stow plan, bay plan, stevedore, manifest, dock receipt.

8.3 Understand the difference between inland waterways and oceans and the importance of each to logistics and supply chain management.

8.4 Explain units of measure employed in the ocean carrier industry, including break bulk, wet bulk, dry bulk, rolling stock, containerized cargo, and less than container load.

8.5 Create a chart of the types of vessels used in the industry.

8.6 Explain the advantages and disadvantages of choosing ocean careers to ship materials.

8.7 Compare and contrast careers in the ocean carrier industry, along with their education, training requirements, salary ranges, and job openings.

Support of CTAE Foundation Course Standards and Georgia Standards of Excellence

ELACC9-10SL5: Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.

Course Standard 9

TDL-LF-9
Acquire an understanding of the importance of deep water ports to logistics and supply chain management.

9.1 Understand the geography of the world by identifying the continents and mapping the various key ports of the world.

9.2 Chart the history of deep water ports in the United States.

9.3 Define the characteristics required to be a deep water port.

9.4 Compare and contrast the top four deep water ports in the United States.

9.5 Explain the TEU, FEU unit of measure.

9.6 Describe the different types of cranes used at deep water port terminals.

9.7 Describe the different types of ocean freight containers including open top containers, high cube containers, reefers, dry cargo containers, flat containers, and tank containers.

9.8 Create a diagram of a United States deep water port.

Support of CTAE Foundation Course Standards and Georgia Standards of Excellence

ELACC9-10SL5: Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.
Course Standard 10

TDL-LF-10

Explore types of equipment used in warehousing to move, store, and control and protect products.

10.1 Identify the primary types of hand-operated warehouse equipment.
10.2 Differentiate various industrial fork trucks and automated guided vehicles used in a warehouse.
10.3 Investigate requirements for fork truck certification.
10.4 Identify the various types of loading dock equipment.
10.5 Compare and contrast the various types of conveyors and conveyor systems used in a warehouse.
10.6 Diagram the parts of overhead handling equipment including hoist, bridge cranes, job cranes, and gantry cranes.
10.7 Analyze various types of storage rack and their ability to subject materials to a FIFO or LIFO method of handling.

Support of CTAE Foundation Course Standards and Georgia Standards of Excellence

ELACC9-10SL5: Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.

Course Standard 11

TDL-LF-11

Acquire an understanding of the concept of warehousing and material handling logistics.

11.1 Understand the role warehousing and distribution plays in the supply chain.
11.2 Identify receiving as the first functional area of all warehousing and distribution facilities.
11.3 Analyze storage activities as the second functional area of all warehousing and distribution facilities.
11.4 Examine order picking as the third functional area of all warehousing and distribution facilities.
11.5 Understand that inventory management is an essential component of all the functional areas of warehousing and distribution facilities.
11.6 Identify shipping as the fourth functional area of all warehousing and distribution facilities.
11.7 Examine ergonomics as a process to minimize the chance of injury on the job and improve productivity.
11.8 Understand the need for sustainability in all warehousing and distribution facilities.

Support of CTAE Foundation Course Standards and Georgia Standards of Excellence

ELACC9-10SL1: Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.

ELACC9-10SL4: Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.
ELACC9-10SL5: Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.

### Course Standard 12

**TDL-LF-12**

Examine how related student organizations are integral parts of career and technology education courses through leadership development, school and community service projects, and competitive events.

12.1 Explain the purpose, mission, objectives, motto, colors, official dress and other distinguishing characteristics of SkillsUSA.

12.2 Explain how participation in SkillsUSA can promote lifelong responsibility for community service, growth and development.

12.3 Explore the impact and opportunities that SkillsUSA can develop to bring business and industry together with education in a positive working relationship through innovative leadership and career development programs.

12.4 Explore the local, state, and national opportunities available to students through participation in SkillsUSA including but not limited to conferences, competitions, community service, philanthropy, and other SkillsUSA activities.

### Support of CTAE Foundation Course Standards and Georgia Standards of Excellence

**ELACC9-10SL1:** Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.

**ELACC9-10SL4:** Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.