



Implementation Guide

Certified Warehousing and Distribution Specialist



Copyright © 2000, 2002
by Technical College System of Georgia, Quick Start®.
All rights reserved. No part of this manual may
be reproduced or transmitted in any form or by any means,
electronic or mechanical, including photocopying, recording,
or by any information storage and retrieval system,
without written permission from Quick Start®.

Published January 2006
(G010506)



Table of Contents

Section 1 – Introduction	1
CWDS Implementation Guide Overview	1
Target Audience	1
Section 2 – Curriculum Overview	2
CWDS Skill Training Philosophy	3
Curriculum Breakdown	3
Skill Linkage	5
Section 3 – Instructor Selection and Certification	6
Instructor Selection Criteria	6
Interactive Instruction Guidelines	8
Instructor Preparation Process	9
Instructor Certification	9
Instructional Skills Assessment	9
Performance Skills	10
Section 4 – Instructional Materials	12
Instructor Guide	12
Participant Guide	13
PowerPoint Presentations	13
Standard Classroom Supplies	13
Section 5 – CWDS Program Administration	14
Program Approval Process	14
Marketing and Publicity	15
Target Audience	15
Admission Testing and Requirements	15
Grading Guideline/Policy	16
Continuous Improvement Process	17
Section 6 - Working in the Warehousing Environment.....	18
Introduction to CWDS	19
Introduction to Business Principles	20
General Plant Safety	21
Learning for Success	22
Managing Change	23
Self Management and Personal Wellness	24
Positive Work Ethic	26



Section 7 – Warehousing and Workforce Skills	27
The Art of Effective Communication	28
Working Together	30
Positive Image	31
Interview Skills	32
Section 8 – Warehousing and Distribution Process	33
Warehousing and Distribution	34
Warehousing Productivity Measures	35
Methods of Inventory Management	37
Protecting Materials and Merchandise	39
Palletizing	40
Handling Systems	41
Processing Hazardous Materials	42
Section 9 – Warehousing Technology Skills	43
Scanners and Data Entry	44
Warehousing Data Applications	45
Problem Solving	47
Introduction to Industrial Controls	49
Introduction to Computers and Automation	50
Section 10 – Representative Warehousing Skills	51
Math and Measurement	52
Calculators	53
Powered Industrial Truck Operator	54
Warehouse Simulation and Comprehensive Progress Check	55
Certified Warehouse and Distribution Specialist Final Assessment	56
Appendix	57
Feedback Form – Instructors	58
Fonts and Icons used in instructor guides	60
Resource List	61
Technical Certificate of Credit Guidelines	62
Quick Start Requested Documents	75
Guidelines for Instructor Selection and Certification	76



Section 1 – Introduction

CWDS Implementation Guide Overview

Using the Implementation Guide maintains the economic impact and educational integrity designed into the Certified Warehousing and Distribution Specialist curriculum throughout its life cycle. The guide contains information and procedures designed protect the integrity of courses in the curriculum and ensure the curriculum is taught as designed to have the maximum educational and economic impact.

A key objective of the Certified Warehousing and Distribution Specialist curriculum is to stimulate the economic development of the State of Georgia by providing warehousing and distribution center skills training through local technical colleges. The guide provides information on administrative procedures such as grading policy and records; instructional techniques, and comprehensive overviews of courses in the curriculum.

Target Audience

The Implementation Guide is used by those who:

- Provide administrative support to instructors of courses in the curriculum
- Conduct CWDS classroom training
- Administer assessments and evaluations of the skills taught in the CWDS curriculum.
- Consult with clients to meet the economic development needs of the State of Georgia.



Section 2 – Curriculum Overview

One objective of the Certified Warehousing and Distribution Specialist curriculum is to create a pool of skilled employees from which Georgia companies can draw as they staff their warehousing and distribution centers. A second objective is to provide training for employees currently employed in warehousing and distribution to prepare them for greater responsibility and growth in their careers.

Skills taught in the courses are drawn from typical job skills requirements as determined by needs analyses and interviews with supervisors and managers of Georgia's leading edge warehousing and distribution operations.

The curriculum consists of five courses, a warehousing and distribution center simulation, and a final assessment of knowledge and skills. The five courses and assessment include:

1. Working in the Warehousing Environment
2. Warehousing and Workforce Skills
3. Warehousing and Distribution Process
4. Warehousing Technology Skills
5. Representative Warehousing Skills



CWDS Skill Training Philosophy

The CWDS curriculum is based on the educational principle that knowledge of subject matter and the ability to perform tasks based on that knowledge can be determined by observing students using skills taught in the curriculum as they perform tasks. We do not assume students have learned a skill because they understand the information given in the course; in every case it is important that instructors observe students as they perform tasks based on information taught in the various courses in the curriculum. For these reasons, skill practice is part of every course. It is important that students perform all activities and practice sessions in the curriculum.

Curriculum Breakdown

The CWDS Curriculum Breakdown chart lists the units taught and the delivery hours for unit and course.

Course	Hours
DMM 154 - Working in the Warehousing Environment	23
Introduction to the CWDS Program	2
Introduction to Business Principles	5
General Plant Safety	5
Learning for Success	2
Managing Change	3
Self Management and Personal Wellness	4
Positive Work Ethic	2
DMM 156 - Warehousing Workforce Skills	23
The Art of Effective Communication	8
Working Together	8
Positive Image	2
Interview Skills	5



Course	Hours
DMM 158 - Warehousing and Distribution Process	40
Warehousing and Distribution	8
Warehousing Productivity Measures	4
Methods of Inventory Management	6
Protecting Materials and Merchandise	2
Palletizing	8
Handling Systems	8
Processing Hazardous Materials	4
DMM 160 - Warehousing Technology Skills	32
Scanners and Data Entry	6
Warehousing Data Applications	2
Problem Solving	8
Introduction to Industrial Controls	2
Introduction to Computers and Automation	14
DMM 162 - Representative Warehousing Skills	41
Math and Measurement	8
Calculators	3
Powered Industrial Truck Operator	14
Warehousing Simulations	16
Total Curriculum Hours	159



Skill Linkage

Teaching CWDS units requires instructors who have a broad perspective that includes information taught in all units in the curriculum. Instructors should be familiar with the content of all units in each course so that continuity can be maintained from lesson to lesson.

Students who successfully complete the curriculum must be able to integrate their new skills to think critically and objectively when dealing with business situations on the job.



Section 3 – Instructor Selection and Certification

Successful delivery of CWDS depends directly on instructors' teaching and facilitation skills, and on the technical skills and experience they bring to the classroom.

The Instructor must have the planning, organizational, and administrative skills required to successfully coordinate program delivery and provide oversight in maintaining the continuity of lessons.

In order to complete instructor certification requirements, a letter of verification must be submitted to DTAE, documenting that the candidate has met all Instructor Selection Criteria outline in the next section.

Instructor Selection Criteria

Instructors must have a warehousing and distribution industry background in management, frontline supervision, maintenance, operations, or training positions.

Work experience prepares the instructor in these areas of warehousing and distribution:

- Warehousing processes and technologies
- Warehousing organizational principles
- Warehousing and distribution trends, strategies and business issues
- Warehousing workplace skills, including interpersonal skills, team building, personal wellness, decision making, and positive image
- Concepts, skill standards, and methods of world class warehousing and distribution practices, technologies, and problem solving



- Automated distribution systems and computer skills, electrical systems and powered lift truck operations
- Representative warehousing skills including safety, material handling equipment, operation of powered lift trucks and electric pallets, and warehousing safety
- Knowledge of processes and procedures applicable to the major warehousing and distribution job functions.

Additional training related qualifications include:

- Highly developed presentation and facilitation skills
- Expertise in delivering interactive training
- Expertise in delivering performance based training
- Ability to effectively evaluate and coach skill application in practical exercises and simulations
- Ability to personally model the interpersonal and workplace safety skills taught in the program
- Classroom planning and organizational skills.



Interactive Instruction Guidelines

1. Objectives are stated clearly at the beginning of each lesson.
2. Instructor communicates to participants the benefits of each lesson.
3. Instructor links objectives in the current lesson to information covered in previous sessions.
4. Participants are invited and encouraged to actively participate.
5. Instructor uses opening activities or icebreakers to ensure that students learn about each other and begin seeing themselves as part of a group.
6. Instructor's presentation is well organized.
7. Vocabulary and examples are appropriate for the group.
8. Videos, charts, slides, and other media are used to support and clarify course materials.
9. Instructor uses a variety of teaching methods including job related activities, role-plays, self-assessments, case studies, and simulations to involve participants in the learning process.
10. Instructor uses questioning techniques to involve participants.
11. Instructor provides feedback and coaching to participants.
12. Instructions and directions are clear and easy to follow.
13. Presentation is positive, energetic, and enthusiastic.
14. Participant behavior problems are corrected in a positive and constructive manner.
15. Participant learning and involvement is reinforced.
16. Participants demonstrate mastery of each session's objectives.
17. Each session is summarized and closed positively.



Instructor Preparation Process

1. Instructor receives and reviews course materials.
2. Instructors attend the Quick Start Instructor Certification (train-the-trainer) sessions.
3. Lead instructor demonstrates instructional skill and is certified.
4. Periodic meetings are established to discuss issues or concerns regarding the instruction or curriculum.

Instructor Certification

Quick Start periodically holds three-day Instructor Certification sessions to provide instructors with information, materials, and resources to ensure their success in implementing and teaching the Certified Warehousing and Distribution Specialist program.

The objective of the session is to provide CWDS instructors with the following information and resources:

- Overview of the CWDS program
- CWDS Program materials
- Instructor certification criteria
- Review of course content, objectives, materials, activities, and suggested teaching methods with Quick Start instructional designers and subject matter experts.

Instructional Skills Assessment

Instructor skills assessment will be conducted during a 20-minute presentation. The skill assessment is based on key skills from the International Board of Standards for Training, Performance and Instruction (ibstpi).



Performance Skills

Introduction

- Objectives clearly stated in learner terms
- Relevant to warehousing or distribution center jobs
- Links to past learning experiences
- Presents and posts class agenda

Facilitation

- Interactive facilitation method used
- Material presented accurately
- Material presented thoroughly
- Logical flow & organization
- Visuals aid learning
- Examples and analogies used
- Learners actively involved
- Learner experiences used
- Learners names used
- Open & closed questions
- Ask and direct questions
- Incorrect answers handled positively
- Questions answered non-defensively
- Answers correct & concise
- Questions reflected back to learners



- Learners guided to answer questions
- Documentation referenced
- Positive reinforcement
- Confidence and control
- Enthusiasm and positive attitude
- Voice clear & audible
- Eye contact and awareness
- Gestures and mannerisms
- Problems handled appropriately
- Learner comprehension assessed
- Learners given feedback
- Remedial instruction provided as needed

Summary

- Assess class before proceeding to the next lesson
- Linkage to past and future lessons
- Objectives tied to course
- Concepts & material reinforced
- Job relevance reinforced
- Questions used to assess learning
- Learners actively involved
- Exercises and practice tied to lesson content and objectives.



Section 4 – Instructional Materials

Course materials provided by DTAE for the CWDS program are comprehensive and include:

- Instructor Guides
- Participant Guides
- PowerPoint Presentations

(All materials are provided on CD).

The Instructor Guide and Participant Guide are similar in structure and both are developed in a “user friendly” format. Each guide contains course descriptions, performance objectives, instructional content, activities and learning assessment items.

Supporting materials such as PowerPoint presentations, illustrations, and flip charts are used to further enhance the learning experience. Any additional or special supplies that may be used with the course are listed in the individual Instructor Guides.

Instructor Guide

The Instructor Guide provides instructional content and the most important teaching points for each unit. The instructor has the latitude to expound on any teaching point as necessary. There is an agenda in each Instructor Guide with estimated course times. The Instructor may adjust the times listed in the agenda as necessary, but should not exceed the allotted time period for the course.



Participant Guide

The Participant Guide is designed as a training tool to be used during the course, and may be used by the trainee for reference or as a memory jogger in the workplace. This design makes it possible for student to use the materials on the job as a reference and guide when performing routine or unique tasks.

PowerPoint Presentations

PowerPoint presentations are provided to accompany the training materials.

Standard Classroom Supplies

The following supplies and equipment are required for all CWDS courses. Supplies that are specific to individual courses are itemized in the Instructor Guides and in the Course Overview section of this Implementation Guide.

- Attendance Roster
- Course Evaluation for each lesson
- Flip Chart Easel
- Flip Chart Markers
- Flip Chart Paper
- Instructor Guide
- Masking Tape to attach flip chart paper to walls during group exercises
- Name Tent Cards
- Participant Guides
- Computer and Projection System



Section 5 – CWDS

Program Administration

Program Approval Process

DTAE staff notification and review and State Board approval will be required of each school prior to the implementation of the Certified Warehousing and Distribution Specialist certificate program. A letter of intent and completed proposal to offer such a certificate must be submitted no later than one month prior to the anticipated implementation date, and earlier if possible. Letters of intent may be submitted prior to submission of the proposal.

Proposals for new Technical Certificates of Credit shall be approved by the local Board of Directors and submitted by the president of the institution to the Assistant Commissioner for the Office of Technical Education. Each proposal submitted will be reviewed by the Assistant Commissioner or his or her designees and presented to the State Board for consideration and approval. CWDS Instructor Curriculum Review Session and Instructional Skills Certification must take place prior to State Board approval.

For more information on Technical Certificate guidelines and instructions for completing the proposal, refer to:

Technical Certificate of Credit Guidelines

Georgia Department of Technical and Adult Education
Office of Technical Education
Division of Instructional Service, June 1994.

For your convenience, a copy of the Guidelines is included in the appendix of this guide.



Marketing and Publicity

Marketing materials are provided by DTAE for promoting the CWDS program to local business and industry as well as to groups of potential participants.

Target Audience

Technical Colleges will have the most success in implementing the CWDS program when they are able to create partnerships with local business and industry. When recruiting participants for the program, you may want to consider the following target populations:

- Existing Industry
- General Population
- Displaced Workers
- High Schools
- Temporary Agencies

When discussing tuition and fee requirements with any target audience, it is essential that all costs (including hidden costs for admission and testing) be explained up front, even if tuition will be paid from another source.

Admission Testing and Requirements

Admissions requirements for the Certified Warehousing and Distribution Specialist program should insure that students are prepared to begin the first course in the program.

Admission requirements for the CWDS program are as follows:

- ENG 096 and ENG 097, or entrance Asset English score of 35.
- RDG 096 and RDG 097, or entrance Asset Reading score of 38.
- MAT 096 and MAT 097, or entrance Asset Math score of 35.

ASSET is the standardized entrance test used throughout the state. It is available at Technical Colleges throughout the state.



Grading Guideline/Policy

In order to meet the expectations of the business community, it is recommended that an overall grade average of 80% be required for certification. The grade average is calculated from scores received on unit assessments, work ethics and a comprehensive final exam.

General academic guidelines apply and are cited below.

Code: 04-06-02

SATISFACTORY ACADEMIC PROGRESS

(1) Policy:

- (a) Every student seeking admission to a technical college under the policy jurisdiction of the State Board of Technical and Adult Education shall be made aware of the specific institutional requirements of that college for achieving and maintaining satisfactory academic progress.
- (b) Each technical college shall:
 - 1. develop a local Satisfactory Academic Progress Policy that is consistent with Title IV of the Higher Education Act;
 - 2. make the contents of this policy available to all students; and
 - 3. provide a copy of this policy to the Commissioner, Department of Technical and Adult Education.

Authority: Title IV of the Higher Education Act

Adopted: August 3, 1995

SBTAE: Academic Activities – Achievements



Continuous Improvement Process

The success of this certification program hinges on the degree of skills evidenced by graduates who are employed by the Warehousing and Distribution industry.

Meeting and exceeding customers' expectations is the goal of the Certified Warehousing and Distribution Specialist Program. Therefore, continuous improvement is essential to assure consistency and program integrity across the state.

On a regular basis, focus group sessions of administrators, instructors, industry representatives, and program graduates will be conducted to promote ongoing improvement of the certificate program.

During the sessions, materials, technologies, course content, and program design will be discussed. Following the sessions, the program will be updated and reissued to the Technical Colleges as required.



Section 6 - Working in the Warehousing Environment

Course Length: 23 Hours

Overview

This course provides learners with an overview of the functional and structural composition of warehousing and distribution centers. Topics include product flow, warehousing processes, working safely in a warehousing environment, principles in running a business, workplace ethics and how employees affect the bottom line.

Units in this course include:

- **Introduction to the Certified Warehousing Specialist Program** - provides an overview of warehousing and distribution and the CWDS program.
- **Introduction to Business Principles** - presented in the form of an activity in which participants establish and run a business making them aware of the principles of operating a business.
- **General Plant Safety** - stresses the importance of awareness and responsibility of employees working in a warehousing environment.
- **Learning for Success** - focuses on the importance of learning as a necessary skill to succeed in today's workplace.
- **Managing Change** - discusses the causes of change, the concept of change as a process, phases of change and techniques for the healthy management of change.
- **Self Management and Personal Wellness** - emphasizes the importance of managing three important areas of one's life: Personal Wellness, Time Management, and Stress Management.
- **Positive Work Ethic** - focuses on behaviors in the workplace and how an employee's behaviors or actions affect the employee, co-workers, the company and customers.



Introduction to CWDS

Unit Length: 2 Hours

Overview

Certification as a specialist in Warehousing and Distribution is offered because the industry has become an important part in the competitiveness and profitability of a wide variety of businesses. The importance of warehousing and distribution creates a need for trained, career-oriented employees who can grow with the industry.

Objectives

The information, activities and practice provided during this unit will enable participants to:

1. State the primary mission of a warehouse and distribution center.
2. Explain how technology and well-trained warehousing and distribution employees are important to a company's competitiveness and profitability.
3. List the skills that they will develop from this course.



Introduction to Business Principles

Unit Length: 5 Hours

Overview

The purpose of this unit is to make participants aware of the basic principles of operating a business. This awareness will help participants understand the actions and motivations of their employers.

This unit is presented in the form of an activity in which participants establish and run a business for profit. The simulated situations require participants to make decisions that affect the owners, employees and customers.

During the activity, participants will be faced with many issues that are encountered by businesses everywhere. Although various problems will be presented, there are no right or wrong solutions. This exercise helps participants understand that there is usually a sound reason behind most business decisions.

Objectives

The information, activities and practices provided in this unit will enable participants to recognize and discuss the following basic business principles:

1. the importance of having a sound business plan.
2. the importance of producing a quality product.
3. the importance of customer satisfaction and customer feedback.
4. the importance of economics and ethics in business decisions.



General Plant Safety

Unit Length: 5 Hours

Overview

Working safely should be the concern of every individual. Safety includes protecting yourself and others from injury. While others - your employer, your family, governmental agencies, and insurance companies - are concerned for your well-being, you have the final responsibility for your safety in the workplace. Fulfilling that responsibility will not only protect yourself and others from painful injury, but will also help prevent damage to the equipment with which you work.

Objectives

The information, activities, and practice provided during this unit will enable participants to:

1. State six negative attitudinal approaches toward workplace safety.
2. State three things you can do to show concern for safety in the workplace.
3. Name the areas of the body most frequently injured in the workplace.
4. Identify the human factors that contribute to workplace safety.
5. State the six basic steps in job preparation.
6. Identify six categories of safety equipment and clothing.
7. Identify the four classes of fires and approved fire extinguishers for each class.
8. Describe the three main causes of injuries involving rotating or moveable-action machinery.
9. Describe the purpose of the OSHA Hazard Communication Standard, safety information requirements, chemical labeling and Material Safety Data Sheets.
10. Describe the proper use of ladders.
11. Describe proper lifting methods.



Learning for Success

Unit Length: 2 Hours

Overview

This unit introduces learning as a necessary skill for success in today's workplace. Participants become familiar with the different preferences individuals have for learning and how it impacts the ability to learn. Also, they gain an understanding of the importance of applying other learning styles to increase creativity or problem solving ability.

By incorporating discussion and activities, participants will learn how the brain works, determine which side of their brain is dominant and understand if he/she processes information in creative or logical manner.

Participants will learn how to become successful students by improving skills in study habits, time management, note taking, and taking exams.

Objectives

The information, activities, and practice provided during this unit will enable participants to:

1. Describe how people learn.
2. Identify their personal learning styles.
3. Identify and apply learning techniques in order to become better students.
4. Discuss the importance of continuous learning.



Managing Change

Unit Length: 3 Hours

Overview

Our world is ever changing. Many factors influence changes in our world, however, there are three major forces of change: people, technology and information.

In the workplace, employees are asked to learn new ways of doing things, use new tools and change their work habits. Change in the workplace is seldom something that you have control over. However, how you handle change is in your control.

Your reaction to change will affect how you will survive and succeed in your personal and professional life. Some changes are small, some large, and still some are monumental. This unit discusses the causes of change, the concept of change as a process, the dynamics of change, the phases of change and techniques for the healthy management of change.

Objectives

The information, activities, and practices provided in this unit will enable participants to:

1. Identify causes of change in the workplace.
2. Accept change as ongoing.
3. Identify how change affects us.
4. Identify techniques for managing change to achieve a positive outcome.



Self Management and Personal Wellness

Unit Length: 4 Hours

Overview

The purpose of the unit is to help participants take control of their lives in three important areas: Personal Wellness, Time Management, and Stress Management.

Personal Wellness

This section of the unit emphasizes the importance of personal wellness and how it affects our daily lives. Participants see the direct connection between behavior and wellness. They learn that personal wellness is an individual responsibility requiring a conscious effort to develop. They learn to recognize factors that impede personal wellness, and they are introduced to tips for maintaining optimum mental and physical health.

Time Management

In this section, the participants recognize their personal attitude toward time and the benefits of effective time management. By recognizing their unique time problems, they learn to avoid procrastination and set meaningful goals that reflect their own priorities. They realize that mental energy and peak performance varies throughout the workday, so priorities must be adjusted accordingly to accomplish important goals and activities. They identify their personal and professional roles and discuss ways to make time for the people and activities important to them. Participants develop a “Time Audit” that identifies how they are spending their time and areas where time management can be improved.



Stress Management

This section is designed to help participants understand the importance of stress management in a fast-paced, multi-tasked, “time-compressed” workplace. They learn about stress response and how stress can be viewed as both a negative and positive presence in their lives. After learning the physical, emotional, and mental symptoms of stress, the participants identify their own personal stress indicators. Causes of stress are discussed, and the “Life Crises Unit” scale is presented to show situations that can be expected to trigger higher levels of stress. Participants also develop their own Stress Management Action Plan.

Objectives

The information, activities, and practices provided in this unit will enable participants to:

1. Be proactive in making better life choices to ensure optimum mental and physical health.
2. Implement a successful time management plan to accomplish top priority goals and activities.
3. Apply stress management techniques to monitor and manage stress more effectively in their personal and professional lives.



Positive Work Ethic

Unit Length: 2 Hours

Overview

This unit focuses on behaviors in the workplace and how an employee's behaviors or actions affect the employee, coworkers, the company and customers. The unit focuses on workplace values such as: coming to work on time, being punctual, abiding by rules and policies, respecting coworkers, being productive, and serving customers in a positive manner.

The unit helps participants understand where values come from, the importance of respecting workplace values, and the importance of assuming responsibility for one's behavior. Participants also learn how choosing appropriate workplace behavior contributes to the success of the company.

Objectives

The information, activities and practices provided in this unit will enable participants to:

1. Define "positive work ethic" and discuss its importance in the workplace.
2. Identify actions that contribute to workplace success.
3. Explain how employers, the company, and customers benefit when employees demonstrate a positive work ethic.
4. Choose actions that will serve as ground rules for the class during CWDS training.



Section 7 – Warehousing and Workforce Skills

Course Length: 23 Hours

Overview

This course provides training in the workplace practices that contribute to success on the job. Units in this course include:

- **The Art of Effective Communication** - provides basic skills and techniques for communicating more effectively in the workplace.
- **Working Together** - focuses on the ability to work with others as individuals and in teams, thus enhancing one's value to the organization and ability to contribute to a positive work experience.
- **Positive Image** - stresses the importance of personal image and how it affects one's personal and professional life.
- **Interview Skills** - identifies the steps involved in the job interviewing process and prepares participants for successful interviews.



The Art of Effective Communication

Unit Length: 8 Hours

Overview

This unit focuses on the fundamental elements of communication and listening which serve to create a positive environment for effective interactions with coworkers and other business associates.

It provides participants with basic skills and techniques for communicating more effectively in the workplace. An instructor in a classroom setting facilitates the course through lecture, PowerPoint slides, activities, and interactive discussions.

Participants learn that many problems in the workplace can be avoided when time is taken and effort is made to listen and apply the principles of effective communication. The manner in which they communicate with others affects business relationships and results; therefore, it is important that they understand how to relate to others.

This unit includes these topics:

- A communication model
- Barriers to effective communication
- How perceptions are formed
- Listening for facts, beliefs, and feelings
- Effective communication behaviors
- Strategies for active listening
- Positive feedback and questioning techniques



Objectives

The information, activities, and practices provided in this unit will enable participants to:

1. Effectively guide and control conversations by listening attentively, responding appropriately, and acknowledging feelings making others feel unique and important.
2. Interpret verbal and nonverbal messages and provide feedback and reinforcement to ensure understanding and positive business results.
3. Leave a good lasting impression by using positive phrases and body language, along with a helpful tone, to build rapport and cooperation in the workplace.



Working Together

Unit Length: 8 Hours

Overview

Working Together is a one-day team-building and team skills unit. The goal is to enhance participants' ability to work together effectively as a team and produce products and services that surpass customer requirements. This highly interactive course explores the four C's of effective teamwork: communication, cooperation, consideration, and commitment. Participants are introduced to skills necessary to ensure accomplishment of goals within a specific work group.

Objectives

The information, activities, and practice provided during this unit will enable participants to:

1. Define team “synergy.”
2. Describe four requirements for successful teamwork.
3. Explain four communication styles and how they affect interactions with people.
4. List ways versatility can be used to communicate more effectively.
5. Identify “positive-impact phrases” that improve team cooperation.
6. Demonstrate how to show consideration for team members using targeted positive regard.
7. Describe the five stages of team development.
8. Identify specific actions of team members that will enhance team development at each stage.
9. Demonstrate commitment by creating an action plan for continuous team improvement.



Positive Image

Unit Length: 2 Hours

Overview

In a professional work environment, we need to be aware of the image messages we present to our co-workers and supervisors, as well as our customers.

A positive image includes physical elements such as appearance, dress, cleanliness and mental elements such as attitude. Clues to mental attitudes include posture, speech, manners, facial expressions and gestures. The way we look, speak and act, sends messages to others which can be interpreted either positively or negatively.

The purpose of this unit is to enable participants to realize the importance of personal image and how it affects their lives. The course offers steps to achieve the goal of “Being the Best that You Can Be.”

Objectives

The information, activities and practice provided in this unit will enable participants to:

1. Define image.
2. Identify the elements of a positive image.
3. Identify image builders and describe how they contribute to a positive image.
4. Identify image busters and describe what should be done to eliminate them.
5. Explain why a positive image is important and how it can help achieve personal and career goals.
6. Identify ways to present a positive image in the workplace.
7. Assess their personal images and identify specific steps toward enhancing their images.



Interview Skills

Unit Length: 5 Hours

Overview

The purpose of this unit is to identify the steps involved in the job interviewing process and to prepare participants to be successful in every phase. After completing this unit, participants will leave confident in their ability to prepare for an interview. They will be introduced to the dynamics involved when interviewing for a job. They will identify each stage of the process and gain an understanding of the significance of each one. Through role-playing and discussions, participants learn skills/techniques to successfully prepare for interviews.

Objectives

The information, activities and practices provided in this unit will enable participants to:

1. Identify the phases of the interview process.
2. Prepare a resume.
3. Prepare for a job interview.
4. Complete an employment application.
5. Follow up after the interview.



Section 8 – Warehousing and Distribution Process

Course Length: 40 Hours

Overview

This course provides learners with the knowledge and core skills associated with warehousing and distribution. Units in this course include:

- **Warehousing and Distribution** - focuses on warehouse operations, inventory and inventory management as well as key warehousing jobs (receiving, put-away, picking, material handling, staging and shipping).
- **Warehousing Productivity Measures** - discusses metrics commonly used by warehouses and distribution centers, what they measure, and how to calculate them.
- **Methods of Inventory Management** - discusses the types of inventory control systems, including MRP, Just-in-Time philosophy and the Kanban process.
- **Protecting Materials and Merchandise** - discusses protection of product throughout the manufacturing process and special handling of product and materials.
- **Palletizing** - focuses on methods of preparing products and materials for warehousing and transport.
- **Handling Systems** - familiarizes trainees with different types of conveyors that are used on packaging lines in warehouses.
- **Processing Hazardous Materials** - provides an understanding of requirements by federal, state and local agencies placed on warehouse employees concerning hazardous materials.



Warehousing and Distribution

Unit Length: 8 Hours

Overview

Once thought of as simply storage places, the modern warehouse is much more than that. It is a vital link in a company's supply chain. The warehouse of the 21st century manages its inventory by moving it in and out of the facility as quickly as possible. Not all warehouses are the same. Each deals with different products, different equipment, and different management styles. Determining which of the methods of inventory management will work best is a complex task. Therefore, understanding the concepts of inventory management is critical.

In this unit, participants learn about warehouses, warehouse operations, material handling equipment, inventory, and inventory management. It also focuses on key warehousing jobs: Receiving, Put-away or Locating, Picking, Material Handling, Staging, Shipping and Inventory Control.

Objectives

The information, activities, and practice provided during this unit will enable participants to:

1. State the mission of a warehouse.
2. Understand the concept and processes involved in inventory management.
3. Describe the two types of warehouses.
4. Describe the basic functions of warehousing and distribution.



Warehousing Productivity Measures

Unit Length: 4 Hours

Overview

All companies use measurements to monitor their business performance. By measuring their performance they are able to diagnose and correct problems. These measurements are called metrics. There are many different kinds of metrics that are used. Having a strong understanding of what each metric means is the key to improving warehouse operations.

This unit focuses the metrics commonly used by warehouses and distribution centers, what they measure, how to calculate them and the factors that can cause below-standard performance.



Objectives

The information, activities, and practice provided during this unit will enable the participants to:

1. List the four questions we must ask ourselves when establishing new metrics.
2. Define Benchmarking.
3. Determine the total number of orders, lines, or items picked over a given period.
4. Calculate the average orders, lines or items picked over a given period.
5. Define “man-hours.”
6. Calculate the number of man-hours in a given period.
7. Define Order Completion Time.
8. Calculate Average Order Completion Time for a given period.
9. Explain Overages, Shortages and Damages.
10. Calculate the Rate of Overages, Shortages or Damages.
11. Define Mispicks.
12. Calculate the Rate of Error/Mispicks.
13. Calculate the Rate of Accuracy.
14. Explain the concept of Inventory Turns.
15. Calculate Inventory Turns.
16. Determine which warehouse has better Inventory Turns over another.



Methods of Inventory Management

Unit Length: 6 Hours

Overview

Inventory management is critical to the success of any company. In today's world, a company must manage its entire supply chain. This means that inventory managers must understand (and manage) their own inventory as well as that of their suppliers. The often changing demands of production means that manufacturers and suppliers must be strategically linked.

This unit we covers types of inventory control systems, including MRP, the Just-in-Time philosophy and the Kanban process.



Objectives

The information, activities and practice provided in this unit will enable participants to:

1. List the two classifications of inventory control systems.
2. State the advantages and disadvantages of a “push” system.
3. State the advantages and disadvantages of a “pull” system.
4. Explain the purpose of MRP.
5. List the three key inputs to MRP.
6. State whether MRP is a “push” or a “pull” system.
7. Explain the JIT philosophy.
8. List the seven goals of JIT.
9. State which ABC classification requires the most, less, or the least management attention.
10. List the two basic options businesses have when reordering raw material.
11. Explain how vendor-managed inventory can benefit both the supplier and the customer.
12. Explain the Kanban process.
13. State the two key factors involved with the Kanban process.



Protecting Materials and Merchandise

Unit Length: 2 Hours

Overview

An important consideration for any warehouse or distribution center is protection of the product that is being handled. Just as manufacturers design and build special equipment to support and protect the product throughout the manufacturing process, warehouses have devised ways to continue this special handling for most products.

This unit discusses protection of product throughout the manufacturing process and special handling of product and materials.

Objectives

Upon completion of this unit the participants will be able to:

1. Explain the advantages of cardboard packaging.
2. Describe the use of blister packs.
3. Describe the operation of the forming machine and identify the machine components and operations used in thermoforming.
4. Describe the operation of the supported web blister-forming machine and identify the machine components and operations used in thermoforming.
5. Explain the advantages of Expanded polystyrene packaging.



Palletizing

Unit Length: 8 Hours

Overview

It is important that products and materials that pass through the warehouse are securely packaged for handling and transport. The most economical unit of packaging would be as large as possible, small enough to be moved with conventional warehouse equipment and able to be shipped by conventional ground transportation.

This unit focuses on methods of preparing products and materials for warehousing and transport.

Objectives

Upon completion of this unit of study, participants will be able to identify and/or describe the uses of:

1. High Level case palletizers,
2. Low Level case palletizers,
3. Bag palletizers,
4. Pail and drum palletizers,
5. High Level bulk palletizers,
6. Low Level bulk palletizers,
7. High Level depalletizers,
8. Low Level depalletizers,
9. High Level bulk depalletizers,
10. Low Level bulk depalletizers,
11. Different types of pallet dispensers, stackers and conveyors,
12. Tier sheet dispensers and stackers,
13. Maintenance and repair requirements that will keep your palletizers in good operating condition.



Handling Systems

Unit Length: 8 Hours

Overview

Packaging line conveyors are used to transport the product, empty containers, closures, filled containers and loaded cases through the various locations of the warehouse. Conveyors connect the machines or units in a production or packaging line and move the product and containers into position for filling, closing, inspection, coding and marketing, case packing and other functions that may be involved in a particular warehouse operation.

In this unit participants will become familiar with different types of conveyors that are used on packaging lines and learn to describe the ways they are used.

Objectives

The information, activities and practice provided during this unit will enable participants to:

1. Describe the different types of conveyor systems used in warehouses.
2. Identify a conveyor that is appropriate for a particular product and container.
3. Describe how a particular product or container is moved through a warehouse.
4. Specify the type of protection that must be provided for a product while in a conveyor system.



Processing Hazardous Materials

Unit Length: 4 Hours

Overview

Keeping the environment clean and healthy for the future has become an important responsibility for warehouse managers. Taking care of the environment, while taking care of business, can be accomplished if the right tools and techniques are in place.

Warehouse employees need to understand the requirements placed on them by federal, state, and local agencies. Government agencies that are concerned with Hazardous Materials (hazmats) are the Department of Transportation (DOT), Occupational Safety and Health Administration (OSHA), and the Environmental Protection Agency (EPA).

This unit provides an understanding of requirements by federal, state and local agencies placed on warehouse employees concerning hazardous materials.

Objectives

Upon completion of this unit the participant will be able to describe:

1. the environmental concerns of the warehouse and how each directly impacts the distribution center and the warehouse function.
2. the various aspects of hazardous materials (hazmats).
3. hazardous material regulations.
4. spill response.
5. storm water discharge.
6. accident prevention strategies.



Section 9 – Warehousing Technology Skills

Course Length: 32 Hours

Overview

Warehousing technology skills are those practices important to working in a technical environment. This course covers the use of scanners and data applications along with the understanding of industrial controls and computers and automation.

Units in this course include:

- **Scanners and Data Entry** - familiarizes participants with scanners, scanning systems and bar coding. Practical exercises are conducted to reinforce understanding of the scanning and data entry process.
- **Warehouse Data Applications** - discusses warehouse management systems commonly used in maintaining accurate and efficient inventory.
- **Problem Solving** - introduces a six-step problem solving process that includes identifying problems, and applying a systematic approach to problem solving. It also focuses on tools that can be used during the problem solving process.
- **Introduction to Industrial Controls** - provides a basic understanding of industrial control circuits used in a manufacturing environment.
- **Introduction to Computers and Automation** - examines how computers are being used in the today and prepares participants to use computers in the workplace.



Scanners and Data Entry

Unit Length: 6 Hours

Overview

This guide familiarizes participants with scanners, scanning systems and bar codes. The guide contains descriptions of basic scanners, explanations of where and how they are used, and a glossary of terms.

Working individually and in teams, the participants will be given practice exercises and activities to reinforce their understanding of scanners.

Objectives

When the participants have completed this material, they will be able to:

1. Describe the function of scanners used in the warehousing and distribution process.
2. Correctly retrieve data from some basic warehouse documents.
3. Accurately respond to some basic warehouse situations, using the scanner information given you.
4. Scan a bar code and identify errors.



Warehousing Data Applications

Unit Length: 2 Hours

Overview

To successfully meet your customer's requirements, the warehouse must be able to make efficient use of warehouse resources through the proper balance of labor, equipment, space and systems. To successfully balance warehouse resources the system inventory must accurately reflect the physical inventory.

Warehouse Management Systems incorporate communication technologies, Inventory Identification Systems, Electronic Data Interchange, and Manufacturing Resource Planning (MRP II) to maintain an accurate and efficient inventory system.

This unit discusses some of these technologies that are commonly used in warehouse management.



Objectives

The information, activities and practice provided in this unit will enable participants to:

1. List the four basic warehouse functions.
2. Describe different types of Warehouse Systems.
3. List the types of Inventory Identification Systems.
4. Describe the advantages of radio frequency communications.
5. List the fundamental units of a radio frequency communication system.
6. Describe a typical RF Warehouse Transaction.
7. Explain the advantages of RF data input over manual data input.
8. Describe the advantages of Electronic Data Interchange.
9. Explain how EDI helps the warehouse attain its goals.
10. Describe the MRP II communication process.
11. Explain how MRP II affects the manufacturing process.



Problem Solving

Unit Length: 8 Hours

Overview

This unit is divided into two major sections: Problem Solving Process and Problem Solving Tools. The first section introduces a six-step problem solving process and the second section provides tools that can be used during the problem solving process.

Problem Solving Process

Problem solving refers to the ability to use critical thinking to assess situations and to act decisively to resolve problems when they arise. This section presents a six-step problem solving process which includes identifying problems, applying a systematic approach to solving the problem, and following up to ensure that the problem was resolved.

Problem Solving Tools

This section focuses on the tools that can be used within the problem solving process to contribute to the success and continued excellence of an organization. While these skills are not required for day to day activities, they are needed to solve specific problems when participating in ad hoc functional and cross functional teams.



Objectives

The information, activities, and practice provided during this unit will enable participants to:

1. Justify a structured approach to solving problems.
2. Use a systematic six-step process for solving problems.
3. Assess the circumstances of a problem.
4. Analyze alternative solutions to a problem.
5. Plan how the solution will be implemented or executed.
6. Evaluate the effectiveness of an implemented solution.
7. Reassess a decision and take corrective action as necessary.
8. Handle difficult situations more efficiently and effectively.
9. Use basic tools to aid in the problem-solving process.



Introduction to Industrial Controls

Unit Length: 2 Hours

Overview

Industrial control circuits assist in performing very simple to sometimes very complex tasks that might otherwise have to be performed manually. Some control circuits may perform simple functions such as signaling when an operation is complete. Others may be highly developed programmable control circuits used to monitor, make decisions and control operations throughout the complete manufacturing process.

This unit provides a basic understanding of industrial control circuits aids in the overall understanding of manufacturing processes.

Objectives

The information, activities, and practice provided during this unit will enable participants to:

1. Identify the basic purpose and the three sections of a control circuit.
2. Name three common switches used to control industrial components.
3. State three purposes of a relay.
4. Identify the different types of logic used in control circuits.
5. State the purpose and function of a Programmable Logic Controller.



Introduction to Computers and Automation

Unit Length: 14 Hours

Overview

We live and work in an information age and are seeing technological changes occurring every day. Many of these changes are driven by the increased use of computers to manipulate data and produce information. By the introduction of computerization in warehousing and distributions centers, American companies are becoming more competitive in markets around the world.

This unit examines how computers are being used today and prepares participants to use computers in the workplace.

Objectives

The information, activities, and practice provided during this unit will enable participants to:

1. Describe the importance of computers in manufacturing, business and in our daily lives.
2. List and describe the hardware components of a computer system.
3. Identify basic computer terms.
4. Demonstrate the use of the keyboard and the mouse to enter computer data.
5. Define automation and discuss its advantages.
6. Describe computer-integrated manufacturing.
7. Identify the parts of the screen for the Microsoft Windows operating system.
8. Demonstrate the basic use of the Microsoft Windows operating system.



Section 10 – Representative Warehousing Skills

Course Length: 41 Hours

Overview

This course discusses mathematical concepts used in warehousing and distribution. It also focuses on powered material handling equipment and safety requirements. Warehousing simulations provide the opportunity to

Units in this course include:

- **Math and Measurement** - reviews mathematical concepts and the importance of these concepts in a warehousing and distribution environment. Participants practice various types of mathematical computations that will enable them to perform their jobs more easily and make them more valuable employees.
- **Calculators** - teaches the use of a basic hand-held calculator and provides practice in performing mathematical computations
- **Powered Industrial Truck Operator** - provides the knowledge of methods and procedures necessary to safely operate a powered industrial truck in the workplace.
- **Warehousing Simulations** - provides a structure in which participants use information from the behavioral lessons such as interviewing, teamwork, and work ethics to develop solutions to problems representing both warehousing and personal performance issues.



Math and Measurement

Unit Length: 8 Hours

Overview

All jobs require some knowledge of mathematics. Warehousing and distribution are no different. From the receiving dock to the accounting office, working with numbers is important to every aspect of inventory management. Counting the items received, adding and deleting inventory, estimating the amount of space required to store merchandise, interpreting productivity charts, determining shipping costs, and (most importantly) calculating your paycheck all require math skills.

This unit reviews many of the concepts that we have learned over the years (and possibly forgotten). Participants will see how each of these concepts is important to warehousing and distribution. Mastering these skills will make their job easier and make them more valuable employees.

Objectives

The information, activities and practice provided during this unit will enable participants to:

1. Perform mathematical computations using whole numbers, fractions, mixed numbers, decimals and percentages.
2. Perform conversions involving fractions, decimals and percentages.
3. Acquire familiarity with measurements of liquid, solid and distance in both English and metric.
4. Calculate an average.
5. Identify common angles.
6. Calculate the perimeter and area of an object.



Calculators

Unit Length: 3 Hours

Overview

Using the calculator, one can quickly compute correct answers to difficult or lengthy math problems.

In this unit, participants will learn to use a basic hand-held calculator. They will learn the terms for the working parts of the calculator and the functions of many of the keys. They will practice working with whole numbers, fractions, mixed numbers, and decimal numbers.

Objectives

The information, activities, and practice provided during this unit will enable participants to use a calculator to:

1. Add, subtract, multiply, and divide whole numbers.
2. Add, subtract, multiply, and divide decimal numbers.
3. Add, subtract, multiply, and divide fractions.
4. Solve multi-step computations.
5. Calculate percentages.
6. Square numbers.
7. Find the square root of numbers.



Powered Industrial Truck Operator

Unit Length: 10 Hours

Overview

This unit is not designed to increase manufacturing associates' proficiency as operators, but to ensure that they have the knowledge necessary for the safe operation of a powered industrial truck. The training material conveys the methods and procedures necessary to safely operate a powered industrial truck in the workplace.

Objectives

Upon completion of this unit, participants will be able to:

1. Recognize and avoid hazards you may encounter while operating a powered industrial truck.
2. Identify the controls and components common to all powered industrial trucks.
3. Perform the steps in a preoperational check of the powered industrial trucks.
4. Demonstrate the proper handling, stacking, loading and unloading methods.
5. State the specific safety precautions for operating LP (liquid propane), battery, gasoline and diesel powered industrial trucks.
6. Operate a powered industrial truck safely while negotiating a driving course.



Warehouse Simulation and Comprehensive Progress Check

Unit Length: 16 Hours

Overview

This unit provides participants with practice exercises that aid in the learning experience and a review of the concepts gained during the program. This unit also includes an instructor-led team progress check that is used for review prior to the final exam.



Certified Warehouse and Distribution Specialist Final Assessment

Overview

The CWDS Final Assessment is a 50-question exam that assesses the participant's retention of basic warehousing and distribution business knowledge and skills.



Appendix



Feedback Form – Instructors

Certified Warehousing and Distribution Specialist Constructive Comment Form	
Date Submitted ____/____/____	
CWDS Course or Area	<div style="display: flex; flex-wrap: wrap;"><div style="width: 50%;"><input type="checkbox"/> Curriculum</div><div style="width: 50%;"><input type="checkbox"/> Warehousing and Distribution Process</div><div style="width: 50%;"><input type="checkbox"/> Implementation Guide</div><div style="width: 50%;"><input type="checkbox"/> Warehousing Technology Skills</div><div style="width: 50%;"><input type="checkbox"/> Working in the Warehousing Environment</div><div style="width: 50%;"><input type="checkbox"/> Representative Warehousing Skills</div><div style="width: 50%;"><input type="checkbox"/> Warehousing Workforce Skills</div><div style="width: 50%;"><input type="checkbox"/> Other</div></div>
<input type="checkbox"/> Concern	<hr/> <hr/>
<input type="checkbox"/> Positive Comment	<hr/> <hr/> <hr/>
<input type="checkbox"/> Suggestion	<hr/> <hr/> <hr/>
Name _____ Position _____	
Technical Institute _____	
Address _____	
Phone Number _____ GIST _____	
Please mail completed form to CWDS Curriculum Coordinator, Georgia Quick Start 75 5th Street, NW Suite 400 Atlanta GA 30308 or FAX to 404-253-2833	



Course Feedback – Participant

Instructor: _____ Course: _____

Company: _____ Date: _____

Your feedback is important for our continuous improvement. Please take a moment to check (✓) the box that best reflects your opinion on each of the items listed.

Course:	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree																		
1. Course objectives were given.																							
2. Topics were logically sequenced.																							
3. Course manuals were organized.																							
4. Learning was aided by the videos, charts, or other media.																							
5. Course allowed for the practice of skills.																							
6. The stated course objectives were met.																							
Instructor:	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree																		
7. The instructor's presentation was organized.																							
8. Instructor was knowledgeable about the subject.																							
9. Instructor was easy to understand.																							
10. The instructor encouraged participation in the course.																							
11. Instructor provided feedback to participants.																							
12. Instructor was concerned about participant learning.																							
Overall Rating: (Circle your choice) <table> <tr> <td></td> <td>Course</td> <td>Instructor</td> </tr> <tr> <td>Highest</td> <td>5</td> <td>5</td> </tr> <tr> <td></td> <td>4</td> <td>4</td> </tr> <tr> <td></td> <td>3</td> <td>3</td> </tr> <tr> <td></td> <td>2</td> <td>2</td> </tr> <tr> <td>Lowest</td> <td>1</td> <td>1</td> </tr> </table>		Course	Instructor	Highest	5	5		4	4		3	3		2	2	Lowest	1	1	Comments: What did you like best about this course? What can be improved about this course?				
	Course	Instructor																					
Highest	5	5																					
	4	4																					
	3	3																					
	2	2																					
Lowest	1	1																					



Fonts and Icons used in instructor guides

Italics type

This style is used for notes to the Instructor, for background information, possible responses from participants, and answers to exercises in the Participant Guide.

Normal type

This style is used for directs to the instructor in facilitating the course and discussion of topics and teaching points.

Flip Charts

A solid box indicates a flip chart you prepare prior to class or during class.

A box with a dashed line at the bottom indicates a flip chart that you prepare in class. It is used to record participant responses or to list teaching points as you instruct.



Resource List

Books

Among the many books available, two best cover the field as a general reference, provide detailed information on strategy, and discuss technologically advanced handling systems:

Roy L. Harmon, Reinventing the Warehouse, Free Press, New York, 1993. (\$36, Amazon.com)

James Tompkins, Jerry D. Smith, eds., The Warehouse Management Handbook, Tompkins Press, Raleigh, NC, 1998. (\$89.95 Amazon.com)

Websites

There are many websites available, the best for instructional purposes are here listed. Most warehousing and logistics websites offer free access to major articles in their monthly publications, and several, such as “Warehouse Management Magazine” and Warehousing and Research Council’s (WERC) “Managing Warehouse Operations” allow users to download articles from previous editions. Sample what is free on the web before subscribing to any of the industry’s print magazines.

www.werc.org (Warehousing Research Council)

www.warehousing.com (Warehousing Management)

www.astl.org (American Society of Transportation and Logistics)

www.apics.org/magazine (APICS)

www.warehouselogistics.org (International Warehouse Logistics Association)

The books and websites cited in this section were used as resources in developing CWDS course material.



Technical Certificate of Credit Guidelines

GEORGIA DEPARTMENT OF TECHNICAL
AND ADULT EDUCATION
Office of Technical Education
Division of Instructional Service



**GEORGIA DEPARTMENT OF TECHNICAL
AND ADULT EDUCATION**

TECHNICAL CERTIFICATE OF CREDIT GUIDELINES

June 1994

DEFINITION: A Technical Certificate of Credit program is a coherent body of study that: (1) does not lead by itself to a diploma or degree; (2) normally requires no more than one full year of study; (3) is composed of courses that are related to an area of specialized study; (4) may be offered on a recurring basis; (5) and is publicized in the institution's catalog. The Department of Technical and Adult Education recognizes the following type of certificate program.

A **Technical Certificate of Credit** program is a coherent body of knowledge consisting of a group of courses numbered 100 or above taken from any State-approved post-secondary standard curriculum, including approved institutionally developed elective courses, that is offered by a technical institute. The Technical Certificate program must be a least 15 quarter credit hours in length and may not exceed 59 quarter credit hours. It should respond to the training needs of business and industry or the community at large and be open to students not seeking a diploma or degree. The Technical Certificate program may enroll a regularly admitted student who wishes to pursue a Technical Certificate while concurrently pursuing a diploma or degree. Such enrollment does not alter any requirements for regular admission to the diploma or degree program. The Technical Certificate may also be used to add on areas of specialization after the completion of the diploma or degree. The credential presented to a graduate of a Technical Certificate of Credit program will specify the area of specialization, and the graduate will be warranted in that area.

STRUCTURE: Technical Certificates of Credit. The length of a Technical Certificate of Credit program must be at least 15 quarter hours but not more than 59 quarter hours.

Students will be required to meet institutionally established regular/provisional admission requirements or they may be admitted with special admission status if the length of the Technical Certificate program of study is 25 credits or less.

Technical Certificates of Credit may require any combination of general core courses, fundamental technical courses, specific technical courses, or approved elective courses. Up to 20% of the course of study may be unspecified elective courses. Where no appropriate course exists, a new course or courses may be developed and submitted with the proposal, following the "Institutionally Developed Course Processing Procedures." The design, structure, and numbering of all the courses contained in a Technical Certificate will therefore be consistent with the standard format for courses in diploma and degree programs, and these courses are or will become listed in the system wide catalog of courses. The curriculum design for any Technical Certificate will be based upon a documented need and will be designed to address that specific need.

Because enrollment, graduate, and placement statistics for such programs are to be treated identically to diploma and degree program statistics, Technical Certificate of Credit programs shall be assigned an appropriate C.I.P. code and identified as available program offerings at the institution. The programs can then be marketed accordingly.



CREDENTIAL: Each Technical Certificate will consist of a set of competencies that correspond to identifiable exit points which match specific positions in a field of work. The credential issued as a technical certificate will describe the area of specialization by a name which is clearly descriptive of the area of specialization. The design of the credential shall meet system wide minimum criteria and will be significantly different in appearance from the customary continuing education certificate.

Specifically, the credential must meet the following minimum criteria:

- Standard size - 8 1/2" x 11"
- Institute name, city, state
- Student name
- Date awarded
- Name of technical certificate program and credit hours
- Indicate student has met standards of program reviewed by DTAE
- State seal
- Signature of Institute President
- Signature of Commissioner - DTAE

The exact wording may be determined at the local level and other appropriate information added, such as local seal/logo, Board Chairperson's signature, etc. An example of a credential that meets these criteria is attached.

ADMISSION REQUIREMENTS: Students enrolling in a Technical Certificate of Credit program will be required to meet institutionally established admissions requirements. Therefore admission to a Technical Certificate program would require that the student:

- a) Meet admission standards for special or institutionally established regular/provisional admission status dependent upon the length of the program.
- b) Be granted admission to a specific Technical Certificate of Credit program.
- c) Receive credit for all course work which is completed.
- d) Obtain up to a maximum of 59 quarter hours of credit while in this status.
- e) Have the option of applying for diploma/degree seeking status.

If a Technical Certificate of Credit program meets the minimum program length requirements, in terms of total credits, stated in federal regulations regarding program eligibility, students enrolled to pursue the program will be eligible for federal Title IV student financial aid in accordance with the same regulations governing the eligibility of diploma and degree seeking students.

TUITION AND FEES: Because the design and content of technical certificate programs and the programs' courses are comparable in nature to diploma and degree programs, tuition and fees must be charged, and revenue recorded, in the same manner as with diploma and degree programs except in those instances where the delivery of a specific technical certificate program differs from the normal delivery of regular credit programs. In such instances, additional charges are permissible in recognition of the need for recovery of unfunded costs. The Miscellaneous Services Fee category (which will not be paid by HOPE) or, in some cases, a tuition rate beyond the standard (which will be paid by HOPE) may be used



to charge for appropriate, documented, and otherwise unfunded program delivery costs related to the uniqueness of the required delivery of the program. In accordance with State Board Policy #07-04-03 (Student Fees), the local board and the State Board must approve such fees for each new program or new site where the tuition or fees deviate from the standard institutional fee schedule. Normally, the State Board will approve nonstandard tuition rates for only a limited number of specified program areas; however, miscellaneous service fees will be considered on a case by case basis for any qualifying technical certificate. The initial institutional proposal to offer a technical certificate of credit will specify that standard fees are to be charged or will propose and justify nonstandard tuition rates or miscellaneous service fees. Institutions may also request the State Board to approve changes in tuition or fees for technical certificates by submitting a letter to the Office of Technical Education specifying the proposed change and documenting the unfunded costs justifying the change and the approval of the local board. Once approved by the State Board, the billed charge to the student, company, agency, etc., will therefore be the total of the tuition and fees, including any miscellaneous services fees. Examples of unique delivery include, but are not limited to:

- a) An off-campus, in-plant location for certain courses or the entire program.
- b) A self-contained program, similar to a class-sized project, where the scheduling pattern, space utilization, and staffing incur additional costs.
- c) A closed-admissions program open only to a specified group or groups of individuals, thus creating situations similar to a and b above.

BOARD APPROVAL PROCESS: All Technical Certificate of Credit programs must be reviewed by the State Department of Technical and Adult Education and approved by the State Board of Technical and Adult Education. An institution is limited to the courses it may offer in certificate programs to the level of accreditation it holds, i.e., diploma or degree.

DTAE staff notification and review and State Board approval will be required prior to the implementation of a Technical Certificate program. A letter of intent and completed proposal to offer such a certificate must be submitted no later than one month prior to the anticipated implementation date, and earlier if possible. Letters of intent may be submitted prior to submission of the proposal. Letters of intent and proposals are not binding on the institution.

Each letter of intent is limited to one Technical Certificate program and must be submitted to the Assistant Commissioner, Office of Technical Education. Each letter of intent should be limited to no more than two pages and contain a brief description of the program including its nature, purpose, scope, and estimated implementation date.

A proposal for a Technical Certificate of Credit program requiring no allocation of additional funds may be submitted at any time as a current year IES amendment up until one month prior to its projected implementation date. Proposals for Technical Certificates requiring an additional funding allocation should be submitted in conjunction with the regular annual IES request.

Proposals for new Technical Certificates of Credit shall be approved by the local Board of Directors and submitted by the president of the institution to the Assistant Commissioner for the Office of Technical Education. Each proposal submitted will be reviewed by the Assistant Commissioner or his or her designees and presented to the State Board for consideration of approval.



Instructions for Completing the Proposal

Proposal Format:

Proposals should be submitted following the attached format.

Cover Page:

Each proposal submitted must have a completed cover page signed by the president of the institute.

Classification:

Provide the following information.

Proposed Technical Certificate Name

Proposed CIP Code Number

Total Credit Hours

Proposed Date of Implementation

Justification:

Provide a statement of the purpose and objectives of the program.

Include a discussion of the relationship of the Technical Certificate of Credit to existing programs of study within the institution. This discussion should include a discussion of the need for the Technical Certificate in the service area and why a related diploma or degree program will not meet the need. This discussion should include, but not be limited to, student demand or interest, employer demand or interest, employment opportunities, and demand for services. This discussion must be quantified.

Enrollment information should include anticipated full-time and part-time enrollment for one year. An explanation of the process used to arrive at the estimate should accompany the enrollment information.

Proposed Curriculum:

A proposed CIP Code Number should be selected from the U.S. Department of Education Classification of Instructional Programs Guide.

Course numbers, names, and credit hours should be exactly as described in standards documents or the statewide course database, unless the course is a new institutionally developed course created for the proposed Technical Certificate of Credit program. In that case, course documentation as called for by the “Institutionally Developed Course Processing Procedures” must be included with the Technical Certificate proposal.

Admissions Requirements:

Admissions requirements should be set for the Technical Certificate of Credit program that will insure that students are prepared to begin the first course required in the program. Technical Certificate programs requiring no more than 25 credit hours may list specific admission criteria or may specify the use of the special admissions category. Programs requiring more than 25 credit hours must specify the specific admissions criteria to be used by the institution.

Faculty:

Include a statement of the qualifications of current faculty who are to be involved in the Technical Certificate of Credit program. Identify each faculty member’s role for the proposed program.



Explain any changes in assignments for currently employed faculty or administrators as a result of implementing the proposed Technical Certificate program.

Indicate the number of new faculty or staff who will be necessary to implement the new program, and their qualifications. Indicate any other new positions required to implement the proposed Technical Certificate of Credit program

Physical Plant and Equipment:

Indicate any additional physical plant or equipment requirements to implement the proposed Technical Certificate. Indicate the cost of any such additions. Identify the funding source for said additions.

Library Resources:

Provide a description of current library holdings. Indicate additional holdings needed to support the proposed program and the cost of additional holdings.

Accreditation:

Provide a description of any accreditation, licensure, or certification process required to offer the proposed Technical Certificate of Credit, and an indication as to when the accreditation may be expected.

If graduates of the program are subject to licensure or certification, describe that process and the ways in which the Technical Certificate of Credit program will insure such credentialing.

Estimated Cost:

Provide a detailed account of estimated **additional** expenditures necessary for the first year to implement the proposed Technical Certificate of Credit, and indicate the fund sources that will be used to cover these expenditures.

Include:

- Salaries
- Fringe Benefits
- Equipment
- Supplies
- Travel
- Library
- Physical Plant
- Utilities
- Other

Tuition and Fees:

Either specify that the standard tuition and fees according to the approved institutional fee schedule will be charged the student, company, agency, etc.; or specify the proposed nonstandard tuition rate or miscellaneous service fees and document why these charges are needed to recover unfunded costs in accordance with these guidelines and State Board Policy #07-04-03 (Student Fees).

Institutional Approval:

Include a list of all internal and external bodies which must approve the proposed Technical Certificate of Credit. Attach documentation, such as a copy of minutes, that each body has endorsed the proposal.



Program Description

Course #	Name	Credit Hrs.
DMM 154	Working in a Warehousing Environment	2
DMM 156	Warehousing Workforce Skills	2
DMM 158	Warehousing and Distribution Process	4
DMM 160	Warehousing Technology Skills	3
DMM 162	Representative Warehousing Skills	<u>4</u>
Total Credits		15

Required Admissions Criteria:

Minimum ASSET Scores:	Reading	38
	English	35
	Math	35



New Program Request Proposal Cover Page

Name of Institution:

Site (main campus or satellite center):

Title of Proposed Program:

Award Level (Degree, Diploma, or Technical Certificate of Credit):

Date of Submission:

Anticipated Implementation Date:

Date Approved by Local Board:

Do you want to begin the program if DTAE state improvement funds are not allocated?

Signature of President

Date



A New Program Proposal

Classification:

Proposed Name of Program:

Standardized Program or Institutionally Developed:

Award Level (Degree, Diploma, or TCC):

Proposed CIP Code:

Total Credit Hours:

Proposed Date of Implementation:

Justification:

Statement of Purpose:

Program Objectives:

Statement of Need for Program in the Service Area (Examples of topics that may be included- student interest, employment opportunities, demand for services, and trend analysis. If a survey was used to determine local need, please include survey results.):

Relationship to existing programs or similar programs offered by other institutions in your service area:



Anticipated Enrollment:

Students	Year 1	Year 2	Year 3
Day			
Evening			

Describe process for estimating enrollment:

Curriculum:

CIP Code:

Course Number and Name

Credit Hours

Specify if Diploma/Degree, Elective, or Newly Developed Course

Total Credit Hours:

Admissions Criteria:

Required Age:

High School Diploma or GED required?

Minimum Test Scores: Reading

English

Mathematics

Or meets special admissions criteria. (Only available for programs requiring no more than 25 credit hours.)



Faculty:

Current Faculty to be used:

Name of Position:

Qualifications/ Credentials:

Current Program Areas:

Anticipated Role:

Courses to be taught:

Administrative Duties:

Changes in Current Assignments:

New Faculty Required:

Number:

Qualifications:

New Positions Required:

Physical Plant and Equipment:

Describe any required additions or modifications to the physical plant or equipment:

Total cost of additions or modifications:

Funding Resources:



Library Resources:

Description of Current Holdings:

New Holdings Needed:

Reference Books:

Periodicals:

Circulating Volumes:

Audio Tapes:

Video Tapes:

Computer Software:

Data Base Availability:

Total Projected Cost of Additional Holdings:

Accreditation:

Accreditation, License, or Certification Required:

Description of Accreditation Process:

Date Accreditation is expected:



Estimated Additional First-Year Costs:

Additional Costs	Funding Source
Salaries	
Fringe Benefits	
Equipment	
Supplies	
Travel	
Library	
Physical Plant	
Utilities	
Other	
Total Cost	

Tuition and Fees:

(If proposing nonstandard tuition and fees, justify in terms of recovery of documented unfunded costs)

Tuition

Miscellaneous Service Fees (specify and explain):

NOTE: This document is used to summarize budgetary needs. All items must be entered into the appropriate budget spreadsheets for funding considerations.



Quick Start Requested Documents

Quick Start asks that the following documents be available, on request, for the purpose of validating CWDS courses.

Document	Maintained at:
All participant tests during the pilot phase*	Copies to Quick Start
Feedback Forms*	Quick Start
Guidelines for Instructor Selection and Certification*	Copies to Quick Start
Instructional Skills Assessment	Quick Start
Participant Course Evaluations*	Technical College
Participant Grade Tracking Form*	Technical College
Technical Certificate of Credit	Technical College

* Please forward copies to:

Quick Start

75 5th Street NW, Suite 400

Attn: CWDS Program Coordinator

Atlanta, GA 30308

or FAX

404-253-2833



Guidelines for Instructor Selection and Certification

Successful delivery the CWDS training is dependent on instructional and facilitation skills of the instructor. Additionally, the Lead Instructor must be someone who has excellent planning, organizational, and administrative skills which are required to successfully coordinate program delivery.

Please ensure that instructors teaching CWDS courses possess the following attributes:

A warehousing industry background in either a management, front-line, operations, or training function.

An understanding of skill standards and models of world class manufacturing delivery.

The ability to personally model the interpersonal skills taught in the program.

Excellent presentation skills and facilitation skills.

Experience and expertise in delivering interactive training.

Experience and expertise in delivering performance based training.

The ability to objectively evaluate interpersonal skill application in trainee role play and service simulations.

Classroom planning and organizational skills.

I have reviewed the Guidelines for Instructor Selection for CWDS with

Instructor

and certify that the instructor possesses the skills and background to ensure consistently high quality delivery of the CWDS curriculum.

Technical College Vice President

Date

Technical College



Please maintain this certification in your course files for the Certified Warehousing and Distribution Specialist program and forward a copy to

Quick Start
75 5th Street NW, Suite 400
Attn: CWDS Curriculum Coordinator
Atlanta, GA 30308
or
Fax 404-253-2833