



# Introduction to Certified Warehousing and Distribution Specialist Program

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# Introduction

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.

**You** are starting a program of study that will prepare them for careers in the Warehousing and Distribution industry. This first lesson, the Introduction, gives them with information on warehousing as a career and what they can expect from the Certified Warehousing and Distribution Specialist Program.

The information, activities and practice provided during this unit will enable you 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 you will develop from this course.

**Notes:**

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# What Certification Means

When you have successfully finished this program, you will have learned the skills that managers look for in employees in order for them to be productive members of a warehousing and distribution center team.

To an employer, this certification means that you:

- Have learned a set of skills needed to become immediately productive as an employee
- Know key warehousing and distribution terms and concepts
- Are a “ready now candidate” for an opening in their organization; someone who can “hit the floor running.”

Certification means that you:

- Have made a career choice and are committed to succeeding in your chosen field.
- Have acquired skills and an approach to your job that will help you become an outstanding and valued employee.
- Understand basic business principles and operations.
- Have acquired skills that help you manage yourself and your career, skills that will help you meet your life career goals.

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## Two Important Definitions

Two definitions are important to the course.

A *Warehouse* primarily receives and stores materials until they are needed to make a product, or until a customer places an order for delivery. Trucking companies have warehouses in which goods are unloaded and reloaded then forwarded to the customer, or held until the customer requests delivery. A manufacturing company may have a warehouse to store materials until needed, and to store finished products until they are shipped to a customer.

The focus of a *Distribution Center* is on the quickest, most efficient movement of materials from the supplier to the end customer. The goal of a Distribution Center is to receive materials and ship them to their final destination as quickly as possible, even if that means materials coming off a truck at one cargo door, and being moved across the floor directly to an outbound truck for distribution to the customer. At a Distribution Center the emphasis is on the rapid distribution of goods and materials to customers.

The terms “warehouse” and “distribution center” will be used interchangeably in the course, except where noted in individual lessons.

Many facilities have a combination of warehousing and distribution functions and in this course we will refer to any operation that receives and distributes materials and merchandise as a warehousing and distribution center.



# The Role of Warehouses and Distribution Centers

Warehouses and distribution centers have become an important part of a company's ability to compete and make a profit. To do these things warehouses and distribution centers must:

- Have a new type of employee
- Contribute to a company's competitiveness in the marketplace
- Use technology to increase efficiency

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## A New Type of Employee

Let's look at each of these three starting with the new type of worker needed to work in warehousing and distribution operations. Employers need workers who:

- Can quickly implement changes in how a warehouse works, and suggest changes where they see things that can be done better. Workers must be able to do several different jobs so the warehouse can quickly react to changing conditions.
- Can be team players and understand their roles and responsibilities as members of a team.
- Know how to analyze problems, suggest practical solutions, and help put those solutions into practice.
- Understand that everyone has external and internal customers. External customers pay for our goods and services that meet their requirements. Internal customers provide materials and services coworkers need to get their work done. For example, a picker in a warehouse must accurately pick a customer's order for a CD and a book and get it to the shipper (internal customer) in time for the packer (internal customer) to get boxed and labeled (internal customer) and for a loader (internal customer) to get it on a truck in time for delivery to a retail store (external customer).
- Have learned to manage their careers so they are constantly learning new skills and increasing their value to an employer. Having a career means setting goals, managing time effectively and staying organized.



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## **Contributing to the Company's Competitiveness in the Marketplace**

Companies who cannot compete are not likely to be good long-term employers. A company must make money to provide goods and services, pay stockholders, and pay salaries and provide employee benefits.

A competitive company cannot afford to keep materials in a warehouse for long periods of time; it costs too much money to maintain the warehouse and the inventory. The most competitive company's goal is to receive materials and merchandise in the distribution center and get them to the customer as close as possible to the time they are needed. Here are some examples:

1. A chain of retail stores has limited storage space. The stores sell a brand of television set and keeps five in stock at all times. One of the stores is down to its last television and the computer automatically orders four more and tells the manufacturer to deliver them to the warehouse as part of a larger shipment. The manufacturer sends those four to the distribution center, along with 200 needed by other stores in the chain. All the sets are sent out to the retail stores as soon as they are received at the distribution center.

Advantages to the retail chain:

- The company does not need to use expensive warehousing space to store television sets.
- The retail store gets television sets that are fresh from the factory.
- The company reduces the amount of taxes it must pay on goods kept in inventory.
- The retail store can make the best use of storage and sales floor space because stock is readily available from the distribution center.

Disadvantages to the retail chain:

- There is no margin for error; merchandise must arrive at the distribution center on time and in good condition.
  - There are no television sets to sell if there is a transportation strike, or an accident at the television plant.
  - If the retail store runs out of televisions to sell, the company loses money.
2. An automobile manufacturer uses 30,000 steering wheels on three car models every ten days at one plant. Storing the steering wheels in a company warehouse requires a building, paying salaries and inventory taxes. The auto company contracts with a parts manufacturer to provide the steering wheels within two days of receiving notice that the parts are needed.

The advantages and disadvantages are the same as those in the first example.

3. A retail company pays a consultant to find ways to free up time for store clerks so they can spend more time with customers. During the study, the consultant sees clerks working in the stock room sticking price labels on merchandise and learns that clerks spend almost five hours a doing this work. The consultant recommends that the company find another way to put pricing labels on merchandise. One option is to have suppliers put pricing labels on merchandise before shipment to the warehouse, but the company decides that option requires sharing too much information with outsiders. The company decides to assign price labeling to the warehousing and distribution center.

In this example, the warehousing and distribution center is providing a new, non-traditional service that contributes to the company's competitiveness.



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## Using Technology to Increase Efficiency

Warehousing and distribution centers use computers to increase the competitiveness of the business. Computers, communicating with warehouses or the retail store perform a wide variety of functions.

- Determining the storage location for merchandise and materials as they are brought into the warehouse.
- Directing workers to the location in which to store or retrieve merchandise in the warehouse.
- Tracking inventory as materials are removed from the warehouse and sent to other locations.
- Ordering replacements for merchandise as it is sold in the store.

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## Case Study #1

“Campbell’s Recipe for Savings”, James Aaron Cook, Logistics Management and Distribution Report, March, 2000, pp. 42-44.

“Campbell Soup has revitalized its distribution program and realized seven-figure savings by tailoring its prices to the cost of serving each customer.... The well-known grocery products company has implemented a program that offers pricing incentives to customers to develop practices that reduce Campbell’s distribution costs.

‘We wanted to reward greater efficiency throughout the grocery supply chain,’ [said the] vice president for supply chain planning and logistics. ‘We have identified the activities that drive up costs. We then offered incentives to customers to order more efficiently and engage in electronic ordering and efficient unloading as well as to buy full truckloads and full pallet loads of products.’

Two years ago, the company began looking for ways to reduce its supply chain costs. Managers examined the operation.... They identified factors such as pallet configuration, pallet type, shipment size, carrier unloading...that had a high impact on distribution costs. They concluded that customers that didn’t order electronically and that ordered cases delivered via less than a truckload transport were more costly to service than their counterparts....

...the company can now consolidate more orders into full truckloads. Today, more than 90 percent of its domestic volume is ordered in full truckloads, compared with 70 to 75 percent [before changes in the distribution system]. In addition, 85 to 90 percent of the volumes moves on full pallets today....”





1. List some activities that might be supply chain costs; for example, loading trucks, placing orders.
2. What is the cost saving of electronic ordering?
3. Why would Campbell want all trucks to be fully loaded when they leave the warehouse?
4. Why does Campbell want all pallets to be fully loaded?
5. Based on this article, what sort of new things will Campbell employees learn to do?

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## Case Study #2

“To Ship is Human, to Receive, Divine”, Lisa Guernsey, The New York Times, December 7, 2000, pp. D1, D8.

“Contrary to what you might imagine, Toyland smells like poured concrete, sounds like the clatter of metal rollers on conveyor belts, and from the outside, looks like a truck depot.

...that is Toyland to Ted Augustine, chief logistics office for eToys, one of the top online toyshops. Mr. Augustine has arrived here at the eToys distribution center in south-central Virginia for one of his frequent visits to make sure—doubly sure, absolutely, positively sure—that the toys he expects to be ordered by several million parents and relatives this holiday season will actually reach the children on time.

Last holiday season.... At least 30 percent of online shoppers experienced delivery problems....

...the company, which has a sinking stock price and a legion of investors and analysts watching its every move, decided to ramp up its order filling operations. This year, it built its own distribution centers, [in Blairs, Virginia] and in Ontario, California.

At the end of last month, more than 1,200 employees were roving the 1.2 million square feet of this distribution center, where one packaging area has been designed to handle more than 90,000 packages at once and more than 14 miles of wrapping paper are held on industrial-sized rollers. Miles of shelves contain millions of toys, including scooters, stuffed animals, video games, Play-Doh, and...batteries.”



1. What two things must the distribution center do to keep eToys competitive?
2. What skills do you think are needed to work in eToys' distribution center?

### **Summary of Cases**

The cases you have read demonstrate that warehousing and distribution play an important role in helping companies meet customer needs and maintain their profitability and competitiveness. You have also seen that warehousing and distribution is a changing and challenging environment in which you can learn new skills and grow in your career.

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## **Activity: What You Will Learn in the Certified Warehousing Specialist Program**

Take some time to think about the skills they need to succeed in the warehousing and distribution industry. Re-read the cases and look at their answers to the questions. Make a list of the skills needed to succeed in the distribution centers they have read about.

List as many skills as you can.



# Certified Warehousing and Distribution Specialist Curriculum

The Certified Warehousing and Distribution Specialist program is divided into five courses:

- Working in the Warehousing Environment
- Warehousing Workforce Skills
- Warehousing and Distribution Process
- Warehousing Technology Skills
- Representative Warehousing Skills

Each course contains units that teach the interpersonal and technical skills necessary to become a valued Warehousing and Distribution Specialist.

The chart below provides a breakdown of courses, units and hours.

## CWDS Curriculum Chart

| CWDS Curriculum                               | Hours     |
|---|-----------|
| <b>Working in the Warehousing Environment</b> | <b>23</b> |
| 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         |

|   |           |
|---|-----------|
| <b>Warehousing Workforce Skills</b>         | <b>23</b> |
| The Art of Effective Communication          | 8         |
| Working Together                            | 8         |
| Positive Image                              | 2         |
| Interview Skills                            | 5         |
| <b>Warehousing and Distribution Process</b> | <b>40</b> |
| 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         |
| <b>Warehousing Technology Skills</b>        | <b>32</b> |
| Scanners and Data Entry                     | 6         |
| Warehousing Data Applications               | 2         |
| Problem Solving                             | 8         |
| Introduction to Industrial Controls         | 2         |
| Introduction to Computers and Automation    | 14        |
| <b>Representative Warehousing Skills</b>    | <b>41</b> |
| Math and Measurement                        | 8         |
| Calculators                                 | 3         |



|                                   |            |
|-----------------------------------|------------|
| Powered Industrial Truck Operator | 14         |
| Warehousing Simulations           | 16         |
| <b>Total Hours</b>                | <b>159</b> |

Below is a brief description of each lesson.

### **Working in the Warehousing Environment**

1. Introduction to the Certified Warehousing Specialist Program, which you are now completing.
2. Introduction to Business Principles - discusses the basic principles of operating a business.
3. General Plant Safety - discusses safety regulations, practices and what you can do to ensure a safe working environment.
4. Learning for Success - provides an opportunity to look at individual learning preferences and styles that can be use during the CWDS program and in the future.
5. Managing Change - discusses the causes of change, the concept of change as a process, the dynamics of change, the phases of change and techniques for managing change.
6. Self Management and Personal Wellness - teaches techniques for maintaining optimum mental and physical health as well as techniques for handling stress.
7. Positive Work Ethic - discusses where values come from, the importance of respecting work place values and the importance of assuming responsibility for one's behavior.

## **Warehousing Workforce Skills**

1. The Art of Effective Communication - teaches communication skills that will enable you to be communicate more effectively with internal and external customers as well as supervisors and co-workers.
2. Working Together - enhances one's ability to work together effectively as a team.
3. Positive Image - discusses the importance of personal image and how it affects one's life.
4. Interview Skills - identifies the steps involved in the interviewing process whether interviewing for a job or for advancement within a company.





## **Warehousing and Distribution Process**

1. Warehousing and Distribution - discusses warehouses, warehouse operations, material handling equipment, inventory and inventory management.
2. Warehousing Productivity Measures - discusses the metrics commonly used by warehouses and distribution centers, what they measure and how to calculate them.
3. Methods of Inventory Management - reviews the role of warehouses and distribution centers in managing inventory to see that customers have what they need, when they need it.
4. Protecting Materials and Merchandise - discusses methods of protection of product as it is moved through a warehouse.
5. Palletizing - discusses the economical methods for preparing products and materials for warehousing and shipping.
6. Handling Systems - focuses on various types of conveyor systems that are used in warehousing.
7. Processing Hazardous Materials - discusses regulations by federal, state, and local agencies concerning hazardous waste, recycling, air quality, and compliance auditing.

## **Warehousing Technology Skills**

Warehousing Technology Skills explains how warehouses and distribution centers use computers, computer programs, and other technology as part of their operations.

1. Scanners and Data Entry - discusses basic scanners and explanations of where and how they are used.
2. Warehousing Data Applications - provides key technology terms and how technology is used in the warehouse.
3. Problem Solving - presents problem solving techniques to use when dealing with problems and designing and implementing solutions.
4. Introduction to Industrial Controls - discusses the concepts of industrial control circuits and how they are used in industry.
5. Introduction to Computers and Automation - explains how computers are used in a business environment.



## **Representative Warehousing Skills**

1. Math and Measurement - covers mathematical concepts important to warehousing and distribution.
2. Calculators - provides practice with a basic hand-held calculator working with whole numbers, fractions, mixed numbers and decimal numbers.
3. Powered Industrial Truck Operator - provides information on operation and safety considerations for a powered industrial truck.
4. Warehousing Simulations - contains a warehousing and distribution simulation in which you will work in teams to solve warehousing and distribution problems.

A final exam is administered upon completion of the CWDS program that measures how much you have learned during the program.

[illegible]



# Summary

Warehousing and distribution has become an important part of a company's profitability and success. Warehousing and distribution centers work hard at supporting the company's competitiveness by hiring good employees and, where possible, using technology to improve operations.

The Certified Warehousing and Distribution Specialist program will give you the knowledge and skills that you will need to succeed in this challenging and fast-paced environment.

