

# Warehouse Automation & Smart Logistics

Professional Training Course

Skillslab Training Provider

Skills for Tomorrow's World 



## Course Description

### Introduction

As global supply chains become faster, more complex, and increasingly technology-driven, organizations must transform traditional warehousing into intelligent, connected, and highly efficient logistics operations. Manual processes, limited inventory visibility, inefficient material movement, inaccurate order fulfillment, and disconnected systems can increase operating costs, delay deliveries, and reduce service quality.

The Warehouse Automation & Smart Logistics training course provides professionals and decision-makers with the strategic knowledge and practical tools required to design, evaluate, and implement modern warehouse automation and smart logistics solutions. The program explores automated storage and retrieval systems, warehouse management technologies, robotics, intelligent material handling, digital inventory control, data analytics, connected logistics, and performance optimization.

Designed for government entities, ministries, public sector organizations, large corporations, distribution centers, logistics operators, and executive professionals, this advanced course connects warehouse technology with strategic supply chain performance. Participants will learn how to assess automation opportunities, select suitable technologies, redesign warehouse workflows, improve inventory accuracy, optimize order fulfillment, and develop practical implementation roadmaps.

The executive-level value of this course lies in its ability to help organizations move beyond isolated technology investments and build integrated, scalable, and performance-driven logistics operations. By combining automation strategy, digital transformation, operational excellence, and data-driven decision-making, organizations can reduce costs, improve productivity, increase warehouse capacity, strengthen supply chain resilience, and deliver faster and more reliable services.

### Course Objectives

This course is designed to enable participants to:

- Understand the strategic role of warehouse automation and smart logistics.
- Assess warehouse operations and identify high-value automation opportunities.
- Evaluate modern warehouse technologies and intelligent logistics solutions.
- Improve warehouse layout, material flow, and space utilization.
- Strengthen inventory accuracy and real-time operational visibility.
- Understand automated storage and retrieval technologies.
- Evaluate robotics and intelligent material handling solutions.
- Improve picking, packing, sorting, and order fulfillment performance.
- Integrate warehouse automation with broader supply chain operations.
- Use data and performance indicators to optimize warehouse operations.
- Develop practical business cases for automation investments.
- Manage technology selection, implementation, risk, and organizational change.
- Build a strategic roadmap for smart warehouse transformation.

## **Course Content**

### **Day 1: Warehouse Automation Strategy and Smart Logistics Fundamentals**

- Understanding the evolution of warehouse and logistics operations.
- The strategic role of automation in modern supply chains.
- Traditional warehouses versus smart warehouses.
- Key drivers of warehouse automation.
- Understanding digital logistics and connected supply chains.
- Identifying current warehouse performance challenges.
- Assessing manual, semi-automated, and fully automated operations.
- Understanding warehouse process flows from receiving to dispatch.
- Identifying automation opportunities across warehouse activities.
- Evaluating the relationship between volume, complexity, service requirements, and automation.
- Understanding scalability and future capacity requirements.

- Assessing organizational readiness for warehouse transformation.
- Common reasons warehouse automation projects succeed or fail.
- Practical exercise: conducting a warehouse automation readiness assessment.

## **Day 2: Smart Warehouse Technologies and Automated Systems**

- Overview of modern warehouse automation technologies.
- Automated storage and retrieval systems.
- Vertical and horizontal storage automation.
- Automated conveyors and transport systems.
- Robotic material movement.
- Autonomous mobile transport solutions.
- Automated guided transport solutions.
- Intelligent sorting and distribution technologies.
- Robotic picking and handling applications.
- Automated packaging and palletizing.
- Digital identification and tracking technologies.
- Barcode-based warehouse operations.
- Radio-based identification and real-time tracking.
- Sensors and connected warehouse devices.
- Evaluating technology suitability for different warehouse environments.
- Practical workshop: matching automation technologies with operational requirements.

## **Day 3: Warehouse Management, Inventory Intelligence, and Digital Integration**

- The role of warehouse management systems in automated operations.
- Integrating warehouse technology with enterprise systems.
- Digital inventory control and real-time stock visibility.
- Improving inventory accuracy through automation.
- Managing receiving, put-away, replenishment, and storage digitally.

- Intelligent slotting and product location strategies.
- Optimizing picking routes and order sequencing.
- Integrating warehouse operations with transportation and distribution.
- Managing data exchange between logistics technologies.
- Using connected systems to improve coordination and visibility.
- Introduction to digital twins in warehouse planning and operations.
- Using predictive analytics for workload and capacity planning.
- Applying artificial intelligence to warehouse decision-making.
- Data quality and system integration challenges.
- Practical exercise: designing an integrated smart warehouse information flow.

#### **Day 4: Automated Fulfillment, Performance Optimization, and Smart Operations**

- Designing efficient automated order fulfillment processes.
- Understanding different picking strategies.
- Goods-to-person fulfillment systems.
- Person-to-goods operations supported by digital technology.
- Batch, zone, and wave-based fulfillment methods.
- Improving picking accuracy and productivity.
- Automated sorting, packing, and dispatch operations.
- Reducing order cycle time.
- Managing warehouse capacity and throughput.
- Identifying automation bottlenecks.
- Measuring equipment and system utilization.
- Developing warehouse and automation performance indicators.
- Measuring productivity, accuracy, cost, speed, and service performance.
- Using dashboards and real-time control centers.
- Continuous improvement in automated warehouse environments.
- Practical workshop: developing a smart warehouse performance dashboard.

## **Day 5: Automation Business Case, Implementation, and Transformation Roadmap**

- Identifying and prioritizing warehouse automation investments.
- Building a strategic business case for automation.
- Evaluating investment cost and expected operational benefits.
- Understanding total ownership costs.
- Measuring productivity, capacity, service, and cost improvements.
- Comparing alternative technology solutions.
- Selecting technology providers and implementation partners.
- Developing technical and operational requirements.
- Managing automation project risks.
- Planning phased versus full-scale implementation.
- Managing implementation without disrupting operations.
- Preparing employees for new technologies and operating models.
- Developing new workforce capabilities.
- Cybersecurity and data protection considerations in connected warehouses.
- Establishing governance for smart logistics transformation.
- Final workshop: developing a warehouse automation and smart logistics roadmap.

## **Target Audience**

This course is designed for professionals responsible for warehousing, logistics, supply chain operations, technology, automation, and operational transformation, including:

- Warehouse managers.
- Logistics managers.
- Supply chain managers.
- Distribution center managers.
- Inventory control professionals.
- Operations managers.

- Procurement and supply professionals.
- Industrial and logistics engineers.
- Warehouse design and planning professionals.
- Digital transformation specialists.
- Information systems professionals supporting logistics operations.
- Automation and technology professionals.
- Project and program managers.
- Operational excellence specialists.
- Government and public sector logistics professionals.
- Executives responsible for supply chain and logistics transformation.

### **Course Requirements**

Participants should have a general understanding of warehousing, logistics, supply chain operations, inventory management, distribution, technology, or operational improvement.

Previous experience with warehouse automation is beneficial but not mandatory. Participants are encouraged to bring examples of current warehouse challenges, technology projects, inventory issues, fulfillment problems, or automation initiatives for discussion during practical exercises and workshops.

### **Training Methodology**

The course uses an interactive, practical, and implementation-focused methodology designed to help participants evaluate and apply warehouse automation and smart logistics concepts in real organizational environments.

The training methodology includes:

- Expert-led presentations and facilitated discussions.
- Real-world warehouse automation case studies.
- Technology evaluation exercises.
- Warehouse process analysis activities.
- Automation opportunity assessment.

- Smart warehouse design workshops.
- Inventory and fulfillment optimization exercises.
- Performance measurement activities.
- Business case development.
- Group problem-solving scenarios.
- Implementation planning workshops.
- Strategic transformation roadmap development.

The methodology ensures that participants not only understand warehouse automation technologies but can also evaluate their strategic value, operational suitability, implementation requirements, and expected business impact.

### **Learning Outcomes**

By the end of this course, participants will be able to:

- Explain the strategic value of warehouse automation and smart logistics.
- Assess warehouse operations and identify automation opportunities.
- Compare different warehouse automation technologies.
- Select suitable solutions based on operational requirements.
- Improve warehouse layout and material flow.
- Strengthen inventory visibility and accuracy.
- Evaluate automated storage, transport, picking, and sorting solutions.
- Understand the role of warehouse management technologies.
- Integrate smart warehouse operations with supply chain systems.
- Improve order fulfillment speed and accuracy.
- Develop performance indicators for automated operations.
- Use operational data to support logistics decisions.
- Build a business case for warehouse automation investment.
- Manage implementation risks and organizational change.
- Develop a practical smart warehouse transformation roadmap.

## **Instructor Profile**

An internationally certified expert with extensive practical and consulting experience.

The instructor brings extensive expertise in warehouse automation, smart logistics, supply chain transformation, warehouse management, digital operations, technology implementation, distribution strategy, and operational excellence across complex public and private sector environments.

The course delivery combines strategic insight with practical implementation experience, enabling participants to understand not only which technologies are available, but also how to select, integrate, implement, and optimize them successfully within real warehouse and logistics operations.

## Contact Us

For registration inquiries, upcoming dates, or group pricing, please contact us:

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