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Global Learning for Operational Leaders

PROCUREMENT AND SUPPLY CHAIN MANAGEMENT | PSCM-017

Artificial Intelligence (AI) in Warehouse Operations & Optimization

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Course content

Why Attend

The integration of Artificial Intelligence into warehouse operations is transforming how organizations manage inventory, optimize resources, and improve operational efficiency. This course provides participants with practical knowledge and modern approaches for utilizing AI technologies to improve warehouse performance, enhance decision-making, reduce operational costs, and support smart warehouse transformation initiatives.

Course Methodology

• The course combines practical workshops, case studies, interactive discussions, simulations, demonstrations of AI applications, analytical exercises, and real-world warehouse scenarios to ensure practical understanding and implementation.

Course Objectives

• Understand the role of AI in modern warehouse operations

• Apply AI concepts to inventory and warehouse optimization processes

• Improve forecasting and inventory planning effectiveness

• Enhance warehouse layout, picking, and fulfillment efficiency

• Utilize AI for workforce planning and predictive maintenance

• Integrate AI technologies with warehouse systems and operations

Target Audience

• Warehouse managers and supervisors

• Supply chain and logistics professionals

• Inventory and materials managers

• Operations managers

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Course outline

Detailed course outline

Day-by-day outline for Artificial Intelligence (AI) in Warehouse Operations & Optimization.

Day 1 - Introduction to AI and Smart Warehouse Foundations

• Understanding warehouse operations and common operational challenges

• Exploring the fundamentals of artificial intelligence and machine learning concepts

• Understanding the importance of data in intelligent warehouse decisions

• Reviewing warehouse data sources and quality requirements

• Understanding the capabilities of AI-supported warehouse management systems

• Reviewing practical examples of AI applications within warehouse environments

Day 2 - AI Applications in Inventory Management and Demand Planning

• Understanding inventory planning challenges and inventory cost factors

• Exploring AI-supported forecasting techniques and predictive models

• Optimizing inventory levels and stock availability strategies

• Reducing excess inventory, shortages, and non-moving stock risks

• Aligning inventory forecasts with purchasing and replenishment activities

• Applying practical inventory optimization exercises and scenarios

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Day 3 - Warehouse Process Optimization and Order Management

• Improving warehouse layout and storage allocation strategies using intelligent methods

• Enhancing picking processes and route efficiency through AI-supported techniques

• Optimizing order processing, sequencing, and workload distribution

• Improving order accuracy and customer fulfillment performance

• Increasing operational visibility through real-time information systems

• Understanding simulation approaches and digital warehouse modeling concepts

Day 4 - Workforce Performance and Asset Optimization

• Applying AI approaches for workforce planning and productivity analysis

• Improving workforce scheduling and operational performance management

• Understanding predictive maintenance methods for warehouse equipment

• Reducing equipment failures and maintenance-related disruptions

• Enhancing workplace safety through intelligent monitoring systems

• Supporting workforce adaptation and change management initiatives

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Day 5 - AI Strategy and Smart Warehouse Transformation

• Integrating AI solutions with warehouse technologies and enterprise systems

• Understanding governance, cybersecurity, and ethical considerations related to AI implementation

• Measuring operational improvements and evaluating return on investment

• Developing implementation strategies for warehouse transformation initiatives

• Managing implementation risks and operational challenges

• Practical workshop: Building a smart warehouse optimization and transformation model

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Seminar dates

Available seminar dates

Live dates and pricing for Artificial Intelligence (AI) in Warehouse Operations & Optimization generated from the course details page.

Date	Location	Format	Fee