Inventory Optimization Techniques Training Course

Professional Development Training Course Outline

Category	Logistics and Supply Chain Management	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Inventory Optimization Techniques Training Course is a high-impact, data-driven program designed to equip professionals with advanced supply chain analytics, demand forecasting intelligence, inventory control frameworks, and cost optimization strategies. In today’s volatile and digitally connected markets, organizations must leverage predictive analytics, AI-powered inventory modeling, real-time visibility systems, and integrated ERP platforms to achieve operational excellence and competitive advantage. This course provides comprehensive knowledge on inventory planning algorithms, safety stock optimization, service level management, warehouse efficiency enhancement, and working capital optimization. Participants will gain practical insights into reducing stockouts, eliminating excess inventory, improving cash flow performance, and strengthening supply chain resilience using globally recognized best practices.

Through strategic inventory segmentation, demand variability analysis, multi-echelon inventory planning, and digital transformation tools, this course empowers organizations to balance customer service excellence with cost leadership. Participants will explore lean inventory systems, just-in-time strategies, automation technologies, and performance measurement dashboards to drive sustainable supply chain performance. By integrating analytics, technology innovation, and strategic planning methodologies, this training enables professionals to align procurement, production, and distribution processes with enterprise growth objectives while minimizing operational risks and maximizing profitability.

Programme Curriculum

Inventory Optimization Techniques Training Course

Introduction

Inventory Optimization Techniques Training Course is a high-impact, data-driven program designed to equip professionals with advanced supply chain analytics, demand forecasting intelligence, inventory control

frameworks, and cost optimization strategies. In today's volatile and digitally connected markets, organizations must leverage predictive analytics, AI-powered inventory modeling, real-time visibility systems, and integrated ERP platforms to achieve operational excellence and competitive advantage. This course provides comprehensive knowledge on inventory planning algorithms, safety stock optimization, service level management, warehouse efficiency enhancement, and working capital optimization. Participants will gain practical insights into reducing stockouts, eliminating excess inventory, improving cash flow performance, and strengthening supply chain resilience using globally recognized best practices.

Through strategic inventory segmentation, demand variability analysis, multi-echelon inventory planning, and digital transformation tools, this course empowers organizations to balance customer service excellence with cost leadership. Participants will explore lean inventory systems, just-in-time strategies, automation technologies, and performance measurement dashboards to drive sustainable supply chain performance. By integrating analytics, technology innovation, and strategic planning methodologies, this training enables professionals to align procurement, production, and distribution processes with enterprise growth objectives while minimizing operational risks and maximizing profitability.

Course Objectives

1. Develop advanced inventory optimization strategies using predictive analytics
2. Apply demand forecasting models to improve forecast accuracy and reduce variability
3. Implement safety stock optimization techniques to enhance service levels
4. Analyze inventory carrying costs and working capital performance indicators
5. Design multi-echelon inventory planning systems
6. Integrate ERP and supply chain management systems for real-time inventory visibility
7. Apply ABC, XYZ, and FSN inventory segmentation frameworks
8. Optimize reorder point and economic order quantity models
9. Improve warehouse operations and distribution efficiency
10. Mitigate supply chain risks using resilience planning tools
11. Leverage AI and machine learning for intelligent inventory management
12. Develop KPI dashboards for performance measurement and continuous improvement
13. Align inventory strategy with corporate financial and operational goals

Organizational Benefits

- Reduced inventory holding costs
- Improved customer service levels
- Enhanced working capital optimization
- Increased supply chain agility
- Reduced stockouts and overstock situations
- Strengthened risk management capabilities
- Improved forecast accuracy
- Greater operational transparency
- Enhanced cross-functional coordination
- Sustainable profitability growth

Target Audiences

- Supply Chain Managers
- Inventory Controllers
- Procurement Professionals
- Operations Managers
- Warehouse Managers
- Logistics Coordinators
- Finance and Cost Analysts
- ERP and Systems Analysts

Course Duration: 5 days

Course Modules

Module 1: Foundations of Inventory Optimization

- Principles of supply chain management
- Inventory cost components and financial impact
- Service level metrics and customer satisfaction
- Inventory performance indicators and KPIs
- Demand variability and uncertainty analysis
- Case Study: Inventory imbalance analysis in a manufacturing company

Module 2: Demand Forecasting and Planning

- Quantitative forecasting models
- Time series analysis and trend forecasting
- Forecast accuracy measurement and bias control
- Collaborative planning forecasting and replenishment
- Demand sensing and digital forecasting tools
- Case Study: Forecast improvement strategy in retail distribution

Module 3: Inventory Control Models

- Economic Order Quantity optimization
- Reorder point calculation techniques
- Safety stock determination methods
- Periodic versus continuous review systems
- Lean inventory and just-in-time systems
- Case Study: EOQ implementation for cost reduction

Module 4: Inventory Segmentation and Classification

- ABC analysis for value prioritization

- XYZ analysis for demand variability
- FSN analysis for stock movement tracking
- Service level differentiation strategies
- Inventory rationalization techniques
- Case Study: Inventory classification redesign for cost efficiency

Module 5: Multi-Echelon Inventory Optimization

- Network design and distribution strategy
- Centralized versus decentralized inventory systems
- Risk pooling concepts
- Lead time variability management
- Simulation modeling techniques
- Case Study: Multi-location warehouse optimization

Module 6: Technology and Digital Inventory Systems

- ERP integration for inventory management
- Warehouse management systems
- Automation and robotics in warehousing
- Real-time inventory tracking technologies
- AI-driven analytics platforms
- Case Study: Digital transformation of inventory systems

Module 7: Risk Management and Resilience Planning

- Supply chain risk assessment frameworks
- Disruption impact analysis
- Contingency inventory planning
- Supplier diversification strategies
- Scenario planning and stress testing
- Case Study: Managing supply disruptions during global crises

Module 8: Performance Measurement and Continuous Improvement

- Inventory turnover and performance metrics
- KPI dashboard development
- Cost-to-serve analysis
- Benchmarking best practices
- Continuous improvement methodologies
- Case Study: Performance improvement program implementation

Training Methodology

- Interactive expert-led lectures
- Real-world case study analysis
- Data-driven simulation exercises
- Group discussions and peer learning
- Hands-on spreadsheet modeling
- Practical ERP system demonstrations
- Scenario-based problem solving
- Performance evaluation and feedback sessions

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.
f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Ready to enroll or request a customized program? Book online or contact us:

Register Online Now

Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com