Manufacturing Network Design Training Course

Professional Development Training Course Outline

Category	Manufacturing	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Manufacturing Network Design Training Course is designed to equip professionals with advanced capabilities in supply chain network optimization, digital manufacturing strategy, production footprint design, and operational excellence. In today’s volatile global economy, organizations are increasingly relying on data-driven network modeling, smart factory integration, and resilient supply chain architecture to reduce costs, improve agility, and enhance service levels. This course bridges the gap between theoretical frameworks and real-world application of manufacturing strategy, logistics optimization, and end-to-end value chain design.

This training delivers in-depth expertise in plant location analysis, distribution network design, capacity planning, scenario modeling, and Industry 4.0-enabled manufacturing ecosystems. Participants will learn how to build resilient and scalable manufacturing networks using advanced tools and methodologies such as digital twin simulation, lean manufacturing principles, AI-driven forecasting, and supply chain analytics. The program is tailored to help professionals design cost-efficient, sustainable, and future-ready manufacturing networks that align with global competitiveness and operational excellence.

Programme Curriculum

Manufacturing Network Design Training Course

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5 days

Course Objectives

1. Master Manufacturing Network Optimization Strategies
2. Apply Supply Chain Digital Transformation Models
3. Develop expertise in End-to-End Value Chain Design
4. Analyze Production Footprint Rationalization Techniques
5. Implement Smart Factory Network Integration (Industry 4.0)
6. Optimize Distribution and Logistics Network Architecture
7. Use Advanced Scenario Planning & Simulation Modeling
8. Enhance Capacity Allocation and Resource Optimization
9. Improve Operational Resilience & Risk Mitigation Planning
10. Leverage AI-Driven Supply Chain Analytics
11. Design Cost-Efficient Manufacturing Location Strategies
12. Build Sustainable and Green Manufacturing Networks
13. Strengthen Data-Driven Decision Making in Operations Strategy

Target Audience

1. Supply Chain Managers
2. Operations and Production Managers
3. Manufacturing Engineers
4. Logistics and Distribution Specialists
5. Industrial Consultants
6. Procurement and Planning Professionals
7. ERP/Supply Chain Analysts
8. Business Strategy and Operations Leaders

Course Modules

Module 1: Fundamentals of Manufacturing Network Design

- Core principles of network design
- Global manufacturing trends
- Cost vs service trade-offs
- Strategic alignment with business goals
- Introduction to network modeling
- **Case Study:** Global electronics manufacturer restructuring production footprint

Module 2: Supply Chain Network Optimization

- Network flow analysis

- Demand-supply balancing
- Facility location modeling
- Transportation optimization
- Service level improvement techniques
- **Case Study:** Automotive supply chain optimization in Europe

Module 3: Production Footprint Strategy

- Plant location selection criteria
- Capacity distribution planning
- Outsourcing vs in-house decisions
- Regional manufacturing strategies
- Cost benchmarking models
- **Case Study:** Apparel industry footprint shift to Asia

Module 4: Digital Manufacturing & Industry 4.0 Integration

- Smart factory concepts
- IoT-enabled manufacturing networks
- Digital twin applications
- Real-time data analytics
- Automation-driven design
- **Case Study:** Smart factory deployment in German automotive sector

Module 5: Logistics & Distribution Network Design

- Warehouse optimization
- Distribution center placement
- Last-mile delivery strategies
- Transportation network modeling
- Multi-echelon distribution systems
- **Case Study:** FMCG distribution network redesign in Africa

Module 6: Risk, Resilience & Scenario Planning

- Supply chain disruption analysis
- Risk mapping frameworks
- Scenario simulation techniques
- Business continuity planning
- Resilient network design principles
- **Case Study:** COVID-19 impact on pharmaceutical supply chains

Module 7: Cost Modeling & Financial Analysis

- Total landed cost analysis
- Network cost simulation
- ROI evaluation of network changes
- Budget optimization techniques
- Sensitivity analysis
- **Case Study:** Cost restructuring in global retail supply chain

Module 8: Sustainable Manufacturing Networks

- Green supply chain design
- Carbon footprint reduction strategies
- Circular economy integration
- Sustainable sourcing models
- ESG compliance in network design
- **Case Study:** Renewable energy manufacturing network transformation

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

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
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