

THE COMPLETE COURSE ON MODELING THE SUPPLY CHAIN

“Design, Analyze, and Optimize Supply Chain Systems Using Powerful Modeling Techniques.”

Schedule

Venue (In-house)	Fees
At Your Organization Premises	Ask For The Quotation

Introduction

Modern supply chains are complex, dynamic systems that must balance cost, efficiency, service, and sustainability. To make informed strategic and operational decisions, organizations need the ability to model and analyze their supply chain processes.

The Complete Course on Modeling the Supply Chain provides a comprehensive understanding of quantitative and analytical methods for designing and improving supply chain performance. Through a combination of theory, practical exercises, and case-based learning, participants will master modeling techniques to evaluate trade-offs, forecast demand, optimize logistics, and simulate real-world supply chain scenarios.

This hands-on course is ideal for professionals who aim to transform data into actionable insights and design resilient, high-performing supply chains.

Objectives

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

- Understand the principles and applications of supply chain modeling.
- Build mathematical and simulation-based supply chain models.
- Use data-driven tools to optimize inventory, transportation, and production decisions.
- Apply demand forecasting and network design techniques.
- Evaluate the impact of variability and uncertainty on supply chain performance.
- Utilize performance metrics and scenario analysis for decision-making.
- Integrate modeling approaches into strategic and tactical planning.
- Apply digital modeling tools and software for supply chain analysis.

Why Attend

In a volatile business environment, companies can no longer rely on intuition alone—data-driven decision-making is the foundation of modern supply chain success. This course empowers professionals with the quantitative tools and analytical thinking required to model complex supply chain systems and identify improvement opportunities.

Participants will gain practical experience through step-by-step modeling exercises and real-world case studies, enabling them to translate theoretical knowledge into measurable business value.

Target Audience

This course is ideal for:

- Supply Chain and Logistics Managers
- Operations and Production Planners
- Industrial Engineers and Analysts
- Business and Data Analysts
- Procurement and Distribution Professionals
- Inventory and Demand Planners
- Consultants and Academics in Operations Research
- Anyone involved in supply chain analysis or optimization

Individual Benefits

- Gain proficiency in modeling tools and analytical frameworks.
- Learn to design efficient, data-driven supply chain systems.
- Enhance decision-making and problem-solving skills.
- Understand how to manage uncertainty and risk through modeling.
- Build practical experience with simulation and optimization models.
- Strengthen career prospects in supply chain analytics and operations management.

Organizational Benefits

- Improve accuracy in supply chain planning and forecasting.
- Optimize cost, capacity, and resource allocation through data modeling.
- Strengthen agility and responsiveness to changing market conditions.
- Enhance cross-functional collaboration and data-driven culture.
- Reduce inefficiencies and operational risks through predictive modeling.
- Build organizational expertise in advanced supply chain analysis.

Instructional Methodology

The training combines theoretical understanding with applied modeling practice through:

- Interactive lectures and instructor-led demonstrations
- Hands-on exercises using modeling and simulation tools
- Group projects and case studies based on real supply chain challenges
- Scenario analysis and decision-making simulations
- Peer collaboration and knowledge-sharing workshops
- Continuous feedback and expert mentorship

Course Outline

- Module 1: Introduction to Supply Chain Modeling Concepts
- Module 2: Quantitative Methods for Supply Chain Analysis
- Module 3: Forecasting and Demand Planning Models
- Module 4: Inventory Optimization and Control Techniques
- Module 5: Network Design and Facility Location Modeling
- Module 6: Transportation, Routing, and Distribution Models
- Module 7: Simulation and Scenario Analysis in Supply Chains
- Module 8: Risk and Uncertainty Modeling Techniques
- Module 9: Integrating Technology and Digital Twins in Supply Chain Modeling
- Module 10: Capstone Project – Developing a Complete Supply Chain Model

Certification

Upon successful completion, participants will receive a Certificate of Completion in Modeling the Supply Chain, recognizing their ability to design, simulate, and optimize supply chain systems using analytical and data-driven modeling techniques.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation’s unique goals.

In-House / Customized Training

Interested in running this course for your team?

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