

Intelligent Demand Planning and Inventory Optimization Systems

COURSE OVERVIEW

This course delivers a comprehensive framework for implementing intelligent demand planning and inventory optimization systems, leveraging advanced analytics, machine learning, and AI-driven insights to transform supply chain forecasting and stock management. The course content demonstrates how intelligent systems drive operational efficiency, reduce carrying costs, enhance customer satisfaction, and build resilient, responsive supply chains capable of adapting to volatile market conditions. Participants will learn to harness predictive algorithms, real-time data integration, and cognitive computing to accurately anticipate market demand, minimize stockouts, overstock scenarios, and automate replenishment processes.

WHO SHOULD ATTEND?

This course is designed for supply chain planners, inventory managers, operations directors, data analysts, and logistics professionals across retail, manufacturing, distribution, and e-commerce sectors. It is equally valuable for demand forecasters, ERP implementation specialists, and technology leaders seeking to integrate AI and machine learning into their planning processes. The content caters to both technical professionals and operational managers responsible for inventory efficiency, forecast accuracy, and supply chain responsiveness.

COURSE OUTCOMES

Delegates will gain the skills and knowledge to:

- Implement machine learning algorithms for accurate demand forecasting.
- Design and deploy intelligent inventory optimization models.
- Leverage predictive analytics to reduce stockouts and excess inventory.
- Integrate real-time market data and IoT inputs into planning systems.
- Automate replenishment processes using AI-driven decision rules.
- Evaluate and select appropriate demand planning software solutions.
- Measure performance through key metrics like MAPE, service levels, and inventory turns.

KEY COURSE HIGHLIGHTS

At the end of the course, you will understand;

- How advanced algorithms improve demand prediction accuracy.
- Techniques for determining optimal stock levels across networks.
- Methods for incorporating IoT and market signals into planning systems.
- AI-driven approaches to streamline stock replenishment.
- Criteria for selecting and implementing demand planning platforms.
- Key metrics for assessing planning and inventory effectiveness.
- Strategies for implementing intelligent systems in traditional environments.

All our courses are dual-certificate courses. At the end of the training, the delegates will receive two certificates.

1. A GTC end-of-course certificate
2. Continuing Professional Development (CPD) Certificate of completion with earned credits awarded