Materials Planning & Forecasting for Spare Parts Management

11 – 15 January 2027
Rome (Italy)



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Ref: 323095_225153 **Date:** 11 – 15 January 2027 **Location:** Rome (Italy) **Fees:** 5200 GBP

Course Description

This intensive 1-week course focuses on advanced materials planning and forecasting techniques for effective spare parts management. Participants will learn to optimize inventory levels, reduce costs, and improve service levels using cutting-edge methodologies and best practices in demand forecasting, inventory classification, and supply chain management.

Learning Objectives

- Master advanced demand forecasting techniques for intermittent and erratic demand patterns
- Develop effective inventory classification and management strategies for spare parts
- Implement best practices in materials planning and supply chain optimization
- Utilize data analytics and machine learning for improved decision-making
- Enhance service levels while minimizing inventory costs

Course Modules

Day 1: Foundations of Spare Parts Management

- Introduction to spare parts management challenges
- Demand patterns and characteristics of spare parts
- Inventory classification methods ABC, XYZ, VED
- Key performance indicators for spare parts management

Day 2: Advanced Demand Forecasting Techniques

- Time series analysis and causal models
- Intermittent demand forecasting Croston's method, Bootstrap method
- Machine learning approaches for demand prediction
- Forecast accuracy measurement and improvement

Day 3: Inventory Optimization Strategies

- Safety stock calculation methods
- Reorder point and order quantity determination
- Multi-echelon inventory optimization
- Slow-moving and obsolete inventory management



Day 4: Materials Planning and Supply Chain Management

- Materials Requirements Planning MRP for spare parts
- Vendor-managed inventory and collaborative planning
- Risk management in spare parts supply chains
- Lean and agile strategies for spare parts management

Day 5: Implementation and Continuous Improvement

- Data analytics and business intelligence tools
- Integration of forecasting and planning systems
- Performance monitoring and continuous improvement
- Case studies and best practices in spare parts management

Practical Wins for Participants

- Reduce inventory costs by 15-25% through improved forecasting and optimization
- Increase service levels by 5-10% with enhanced materials planning strategies
- Implement data-driven decision-making processes for spare parts management
- Develop a roadmap for continuous improvement in inventory management

