MRP Planning and Execution in ERP Training Course

Professional Development Training Course Outline

Category	Enterprise Resource Planning (ERP)	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

In today’s fast-paced manufacturing and supply chain environment, mastering MRP Planning & Execution in ERP is no longer optional it’s essential. MRP Planning and Execution in ERP Training Course provides a comprehensive, hands-on learning experience designed to empower professionals with the knowledge and skills to optimize material requirements planning, streamline production schedules, and enhance inventory management. By integrating real-world ERP systems with advanced MRP methodologies, participants will gain the ability to boost operational efficiency, reduce lead times, and minimize production costs, ensuring businesses remain competitive in an increasingly digital landscape.

Leveraging a combination of interactive sessions, practical case studies, and ERP simulations, this training equips learners with the technical expertise and strategic insights necessary for effective MRP execution. Participants will explore forecasting techniques, demand planning, capacity management, and inventory optimization, while understanding how to align these processes with financial, procurement, and production workflows. By the end of this course, professionals will be able to drive informed decision-making, enhance supply chain visibility, and contribute to organizational growth using ERP-based MRP solutions

Programme Curriculum

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Course Duration

5 days

Course Objectives

1. Master Material Requirements Planning (MRP) concepts and ERP integration.
2. Optimize production scheduling and inventory management.
3. Implement demand forecasting and supply chain planning strategies.
4. Analyze and reduce lead times for improved operational efficiency.
5. Enhance capacity planning to balance production and resources.
6. Apply real-time ERP analytics for proactive decision-making.
7. Understand MRP explosion and netting for accurate material planning.
8. Streamline procurement processes through ERP automation.
9. Integrate quality management within MRP execution.
10. Leverage case studies to solve real-world production challenges.
11. Improve cost control and resource utilization.
12. Enable cross-functional collaboration across supply chain teams.
13. Stay updated on digital transformation trends in manufacturing and ERP.

Target Audience

1. Production Planners
2. Inventory Managers
3. Supply Chain Professionals
4. ERP Consultants
5. Operations Managers
6. Procurement Specialists
7. Manufacturing Engineers
8. Business Analysts

Course Modules

Module 1: Introduction to MRP & ERP

- Overview of MRP and ERP systems
- Evolution of manufacturing planning
- Key terminologies and concepts
- Understanding ERP integration with MRP
- Case Study: ERP-driven material planning in a mid-size manufacturing firm

Module 2: Demand Management & Forecasting

- Techniques for accurate demand forecasting
- Historical data analysis
- Sales and operations planning (S&OP)
- ERP tools for demand tracking
- Case Study: Reducing stockouts through ERP-based demand forecasting

Module 3: Inventory Management & Optimization

- Types of inventory and classification methods
- Reorder point and safety stock calculation
- ABC & XYZ analysis in ERP
- Inventory turnover and KPI monitoring
- Case Study: Optimizing raw material inventory in an automotive plant

Module 4: MRP Planning Concepts

- MRP explosion and netting concepts
- Lot sizing techniques
- Lead time management
- Material availability check in ERP
- Case Study: Streamlining production planning in electronics manufacturing

Module 5: Production Scheduling & Execution

- Master production scheduling (MPS)
- Shop floor control
- Resource allocation and capacity constraints
- ERP scheduling tools and dashboards
- Case Study: Reducing production delays in a FMCG company

Module 6: Procurement & Supplier Integration

- Vendor management in ERP
- Automated purchase orders
- Supplier collaboration for on-time delivery
- Cost optimization strategies
- Case Study: ERP-enabled procurement process improvement in a textile unit

Module 7: Reporting & Analytics

- ERP dashboards and key performance indicators
- Real-time monitoring of MRP processes
- Variance analysis and corrective actions
- Predictive analytics for future planning
- Case Study: Enhancing visibility of production KPIs using ERP

Module 8: Advanced MRP & ERP Trends

- Digital transformation in manufacturing
- AI and machine learning in MRP

- Cloud ERP solutions
- IoT-enabled production monitoring
- Case Study: Implementing AI-driven MRP for a smart factory

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

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

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