Advanced Scheduling Techniques 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

Advanced Scheduling Techniques in ERP Training Course is designed to equip professionals with the cutting-edge knowledge and practical skills to leverage Advanced Planning and Scheduling (APS) capabilities within their Enterprise Resource Planning (ERP) systems. In today's highly competitive and volatile global market, traditional scheduling methods fall short, often leading to sub-optimal resource utilization, delayed customer orders, and inflated operational costs. Mastering advanced techniques is no longer optional it is a strategic imperative for operational excellence and maintaining a competitive edge. This program focuses on moving beyond basic Material Requirements Planning (MRP) to implement finite capacity scheduling, constraint-based optimization, and real-time visibility, ensuring the creation of achievable production schedules that are resilient to disruptions.

The comprehensive curriculum utilizes a blended learning approach, combining instructor-led sessions with intensive hands-on labs using industry-standard ERP/APS software. Participants will gain deep expertise in key areas such as demand-driven planning, scenario modeling, and bottleneck management. By applying concepts like the Critical Path Method (CPM) and Critical Chain Project Management (CCPM) in a simulated ERP environment, attendees will learn to transform raw data into a dynamic, optimized production plan. This mastery is crucial for driving tangible results, including increased throughput, significant inventory reduction, and consistently high on-time delivery performance, directly contributing to the organization's digital transformation goals.

Programme Curriculum

Advanced Scheduling Techniques in ERP Training Course

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Course Duration

5 days

Course Objectives

The primary objectives are to enable participants to:

1. Design and implement finite capacity scheduling models for maximum throughput and resource utilization.
2. Identify, model, and manage bottlenecks and resource constraints within the ERP/APS system.
3. Utilize "What-If" scenario analysis to evaluate scheduling alternatives and mitigate production risks.
4. Integrate Advanced Planning and Scheduling (APS) with core ERP modules
5. Implement demand-driven planning and scheduling to minimize excess Work-in-Progress (WIP) and finished goods inventory.
6. Develop and maintain achievable production schedules that maximize customer service levels.
7. Understand and apply algorithms like Critical Path Method (CPM) and priority rules for schedule optimization.
8. Use real-time shop floor data and IIoT integration to drive dynamic rescheduling.
9. Incorporate advanced demand forecasting and Sales and Operations Planning (S&OP) inputs into the schedule.
10. Configure the ERP/APS system for automated global scheduling and rapid response to exceptions.
11. Define and track key scheduling Key Performance Indicators (KPIs) like Schedule Adherence and OEE
12. Align scheduling processes with industry best practices for Supply Chain Optimization.
13. Develop robust schedules that account for supplier variability and supply chain disruptions.

Target Audience

1. Production Planners/Schedulers
2. Operations Managers
3. Supply Chain Managers/Professionals
4. ERP Super Users/Module Consultants (Manufacturing/Logistics)

5. Process Improvement Specialists/Analysts
6. Manufacturing Engineers/Industrial Engineers
7. IT/Business Analysts supporting ERP/APS Systems
8. Project Managers focused on complex manufacturing or maintenance projects

Course Modules

Module 1: Foundations of Advanced Planning and Scheduling (APS)

- Finite and Infinite Capacity Planning.
- APS Integration with ERP
- Constraint Modeling.
- Scheduling Objectives
- Key Scheduling Data in ERP
- Case Study: The Bottleneck Brewery.

Module 2: Finite Capacity Scheduling and Optimization

- Forward and Backward Scheduling.
- Gantt Chart Visualization.
- Setup/Changeover Time Reduction.
- Dispatching Rules (Priorities)
- Material and Capacity Check.
- Case Study: Precision Parts Manufacturer.

Module 3: Advanced Constraint Management

- Bottleneck Identification and Theory of Constraints (TOC).
- Drum-Buffer-Rope (DBR) Scheduling.
- Resource Leveling and Smoothing.
- Overload and Underload Analysis.
- Subcontracting and External Processing.
- Case Study: Oil & Gas Fabrication Project.

Module 4: Dynamic Rescheduling and Execution

- Real-Time Shop Floor Feedback.
- Schedule Exceptions and Alerts.
- Automatic Rescheduling Triggers.
- Comparing Actual and Baseline.
- Corrective Actions and Workarounds.
- Case Study: Automotive Assembly Line.

Module 5: Strategic Planning Integration (S&OP)

- Master Production Schedule (MPS) Refinement.
- Demand Volatility Management.
- Scenario Modeling.
- Multi-Site and Global Scheduling
- Long-Term Capacity Planning.
- Case Study: Consumer Electronics Launch.

Module 6: Advanced Project Scheduling in ERP

- Critical Path Method (CPM) Review.
- Critical Chain Project Management
- Resource-Constrained Project Scheduling.
- Managing Dependencies
- Project Portfolio Management (PPM) Integration.
- Case Study: Pharmaceutical Equipment Installation.

Module 7: Data Integrity and Governance

- Master Data Accuracy for Scheduling.
- User Training and Adoption.
- Data Cleansing and Standardization.
- System Performance and Maintenance.
- Audit Trails and Change Management.
- Case Study: Global Machinery Producer.

Module 8: Reporting and Performance Measurement

- Key Scheduling KPIs.
- Dashboard Configuration.
- Root Cause Analysis
- Custom Reporting in ERP/BI Tools
- Continuous Improvement Loop.
- Case Study: Aerospace Component Supplier.

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:

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