ERP Optimization for Manufacturing Training Course

Professional Development Training Course Outline

Category	Manufacturing	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Enterprise Resource Planning (ERP) Optimization for Manufacturing is a high-impact, industry-focused training program designed to equip professionals with advanced capabilities in streamlining production, improving operational efficiency, and enabling real-time data-driven decision-making. In today's competitive manufacturing landscape, organizations are increasingly adopting smart manufacturing, Industry 4.0, digital transformation, lean production systems, and AI-driven ERP optimization to reduce costs, eliminate inefficiencies, and enhance supply chain visibility. ERP Optimization for Manufacturing Training Course provides a structured pathway to mastering ERP systems tailored specifically for manufacturing environments, integrating best practices in production planning, inventory control, and workflow automation.

The training emphasizes practical, hands-on learning with modern ERP platforms, focusing on SAP S/4HANA, Oracle ERP Cloud, Microsoft Dynamics 365, predictive analytics, IoT-enabled manufacturing, and real-time production monitoring systems. Participants will gain deep insights into optimizing manufacturing operations through ERP configuration, process re-engineering, and performance analytics. By the end of this course, learners will be capable of driving operational excellence, lean manufacturing transformation, cost reduction strategies, and supply chain optimization initiatives across complex industrial environments

Programme Curriculum

ERP Optimization for Manufacturing Training Course

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Course Duration

5 days

Course Objectives

1. Master ERP implementation in manufacturing environments
2. Optimize production planning and scheduling systems
3. Improve supply chain visibility and integration
4. Apply lean manufacturing and Six Sigma principles in ERP
5. Enable real-time inventory management optimization
6. Enhance shop floor automation and digital control systems
7. Implement predictive maintenance using ERP analytics
8. Strengthen demand forecasting and capacity planning
9. Configure SAP S/4HANA or Oracle ERP manufacturing modules
10. Drive cost reduction through process optimization
11. Utilize IoT-enabled smart factory integration
12. Improve quality management and compliance tracking
13. Develop data-driven decision-making using ERP dashboards

Target Audience

1. Manufacturing Plant Managers
2. ERP Consultants and Analysts
3. Supply Chain Managers
4. Production Planning Engineers
5. Operations Managers
6. Industrial Engineers
7. IT Professionals in Manufacturing Systems
8. Business Process Improvement Specialists

Course Modules

Module 1: ERP Fundamentals for Manufacturing

- Overview of ERP architecture in manufacturing
- Core ERP modules: production, inventory, finance
- Integration of manufacturing workflows

- Data flow across supply chain systems
- ERP system lifecycle and deployment models
- **Case Study:** Implementation of ERP in a mid-size automotive parts manufacturer improving production visibility by 35%

Module 2: Production Planning & Scheduling Optimization

- Master Production Scheduling (MPS)
- Material Requirements Planning (MRP)
- Capacity planning optimization techniques
- Bottleneck identification and resolution
- Real-time scheduling adjustments
- **Case Study:** FMCG company reducing production delays by 28% using advanced MRP optimization

Module 3: Inventory & Warehouse Management Optimization

- Just-in-Time (JIT) inventory systems
- Stock level optimization techniques
- Barcode and RFID integration
- Warehouse automation systems
- Inventory forecasting models
- **Case Study:** Electronics manufacturer reducing inventory holding costs by 22%

Module 4: Supply Chain Integration with ERP

- End-to-end supply chain visibility
- Supplier relationship management
- Logistics and distribution tracking
- Demand-supply synchronization
- Blockchain in supply chain ERP systems
- **Case Study:** Global textile company improving supply chain efficiency by 40%

Module 5: Manufacturing Analytics & KPI Dashboards

- ERP reporting and BI dashboards
- Real-time production KPIs
- OEE (Overall Equipment Effectiveness)
- Data visualization techniques
- Predictive analytics in manufacturing
- **Case Study:** Food processing company improving OEE by 18% using ERP dashboards

Module 6: Smart Manufacturing & Industry 4.0 Integration

- IoT-enabled smart factories
- AI-driven ERP automation
- Machine-to-system communication
- Digital twin technology
- Cyber-physical production systems
- **Case Study:** Automotive plant achieving 30% efficiency improvement through IoT integration

Module 7: Quality Management & Compliance in ERP

- ISO and regulatory compliance tracking
- Defect tracking and root cause analysis
- Quality control automation
- Audit management systems
- Continuous improvement frameworks
- **Case Study:** Pharmaceutical manufacturer reducing defect rates by 25%

Module 8: ERP Implementation & Optimization Strategy

- ERP deployment methodologies (Agile, Waterfall)
- Change management in manufacturing systems
- System customization and configuration
- Performance tuning and optimization
- Post-implementation support strategies
- **Case Study:** Heavy machinery company achieving ROI within 14 months after ERP optimization

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:

Register Online Now

Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com