Just-in-Time (JIT) Manufacturing Systems 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

Just-in-Time (JIT) Manufacturing is a globally recognized lean production strategy designed to minimize inventory waste, reduce operational costs, and enhance overall production efficiency. Just-in-Time (JIT) Manufacturing Systems Training Course provides a comprehensive understanding of lean manufacturing principles, demand-driven production, continuous flow systems, and supply chain synchronization, enabling organizations to achieve operational excellence and competitive advantage in today's fast-paced industrial landscape.

With increasing demand for Industry 4.0 integration, smart manufacturing, agile supply chains, and zero-waste production systems, JIT has become a critical methodology for manufacturers aiming to improve responsiveness and profitability. This course equips participants with practical tools, real-world case studies, and proven frameworks to successfully implement JIT systems in manufacturing and service environments.

Programme Curriculum

Just-in-Time (JIT) Manufacturing Systems Training Course

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Course Duration

5 days

Course Objectives

1. Understand Just-in-Time (JIT) manufacturing principles and lean production systems
2. Analyze waste reduction techniques (Muda elimination) in operations
3. Implement continuous flow manufacturing and pull systems
4. Optimize inventory management and stock reduction strategies
5. Improve supply chain synchronization and vendor coordination
6. Apply Kanban systems for production control and workflow efficiency
7. Develop demand-driven production scheduling models
8. Enhance operational agility and production flexibility
9. Integrate Lean Six Sigma tools with JIT frameworks
10. Reduce lead time and cycle time in manufacturing processes
11. Improve quality control through defect prevention systems
12. Enable cost optimization and productivity enhancement
13. Support digital transformation in smart manufacturing environments

Target Audience

1. Manufacturing Engineers
2. Production Managers
3. Supply Chain Professionals
4. Operations Managers
5. Industrial Engineers
6. Quality Assurance Specialists
7. Logistics and Procurement Officers
8. Business Process Improvement Consultants

Course Modules

Module 1: Fundamentals of Just-in-Time Manufacturing

- Overview of JIT philosophy and principles
- History and evolution of lean manufacturing
- Core concepts: waste elimination and value creation
- Comparison between JIT and traditional manufacturing
- Role of JIT in modern Industry 4.0 systems
- **Case Study:** Toyota Production System and global JIT success model

Module 2: Lean Production and Waste Elimination

- Identification of the 7 wastes (Muda)
- Value stream mapping techniques
- Process efficiency improvement strategies

- Lean workplace organization (5S system)
- Continuous improvement (Kaizen) integration
- **Case Study:** Lean transformation in automotive assembly plants

Module 3: Inventory Control and Reduction Strategies

- Just-in-time inventory principles
- Safety stock elimination techniques
- Demand forecasting and replenishment systems
- Inventory turnover optimization
- Real-time inventory tracking systems
- **Case Study:** Retail supply chain inventory optimization success story

Module 4: Kanban and Pull Production Systems

- Kanban card system and digital Kanban tools
- Pull vs push production systems
- Workflow visualization techniques
- Production signaling and control mechanisms
- Bottleneck identification and resolution
- **Case Study:** Electronics manufacturing Kanban implementation

Module 5: Supply Chain Synchronization

- Supplier integration and collaboration models
- Lead time reduction strategies
- Just-in-time delivery systems
- Logistics optimization techniques
- Risk management in supply chains
- **Case Study:** Automotive supplier synchronization model

Module 6: Quality Management in JIT Systems

- Built-in quality (Jidoka) principles
- Defect prevention vs detection
- Total Quality Management (TQM) integration
- Statistical process control (SPC)
- Continuous quality improvement systems
- **Case Study:** Zero-defect manufacturing in precision engineering

Module 7: Lean Six Sigma and Continuous Improvement

- DMAIC methodology in JIT systems
- Process variation reduction techniques
- Root cause analysis tools
- Performance measurement systems
- Operational excellence frameworks
- **Case Study:** Manufacturing process optimization using Six Sigma

Module 8: Digital JIT and Smart Manufacturing

- Industry 4.0 integration with JIT systems

- IoT-enabled production monitoring
- AI-driven demand forecasting
- Digital twins in manufacturing systems
- Smart factory automation strategies
- **Case Study:** Smart factory implementation in advanced manufacturing plant

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