Lean in Process Industries 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

Lean in Process Industries Manufacturing Training Course is designed to equip professionals with operational excellence, and continuous improvement strategies tailored for complex process industries such as oil & gas, chemicals, pharmaceuticals, FMCG, and food processing. This training emphasizes the elimination of waste, optimization of production flow, reduction of variability, and enhancement of overall equipment effectiveness (OEE) using globally recognized Lean tools and methodologies.

In today’s highly competitive industrial landscape, organizations must adopt Lean transformation, digital process optimization, and smart manufacturing principles to remain profitable and sustainable. This course empowers participants with practical skills in Value Stream Mapping (VSM), Kaizen, Six Sigma integration, Just-in-Time (JIT) production, and Total Productive Maintenance (TPM), enabling them to drive measurable improvements in cost, quality, safety, and delivery performance.

Programme Curriculum

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Course Objectives

1. Master Lean Manufacturing principles in process industries
2. Apply Value Stream Mapping for end-to-end process optimization
3. Eliminate operational waste using Lean tools (7+1 wastes)
4. Improve OEE (Overall Equipment Effectiveness) in production systems
5. Implement Kaizen for continuous improvement culture
6. Integrate Six Sigma for defect reduction and quality control
7. Optimize inventory using Just-in-Time (JIT) systems
8. Enhance process flow efficiency and cycle time reduction
9. Develop Standard Work Procedures for consistency
10. Apply Total Productive Maintenance (TPM) strategies
11. Strengthen root cause analysis using Lean tools
12. Drive cost reduction and productivity improvement initiatives
13. Lead Lean transformation projects in manufacturing environments

Target Audience

- Production Managers & Supervisors
- Process Engineers
- Industrial Engineers
- Plant Managers
- Quality Assurance Professionals
- Operations Managers
- Continuous Improvement Specialists
- Supply Chain & Logistics Professionals

Course Modules

Module 1: Introduction to Lean Manufacturing in Process Industries

- Lean philosophy and history
- Lean vs traditional manufacturing
- Process industry challenges
- Lean transformation roadmap
- Waste identification framework
- **Case Study:** Implementation of Lean basics in a chemical processing plant reducing batch delays by 20%

Module 2: Value Stream Mapping (VSM) & Process Mapping

- Current state mapping techniques
- Future state design
- Bottleneck identification

- Material & information flow analysis
- Lead time reduction strategies
- **Case Study:** Pharmaceutical plant reduces lead time by 35% using VSM redesign

Module 3: Waste Elimination & Process Optimization

- 7+1 wastes in process industries
- Overproduction and inventory waste control
- Energy and resource optimization
- Lean waste audit techniques
- Workplace efficiency improvement
- **Case Study:** FMCG factory reduces material waste by 18% through Lean audits

Module 4: Kaizen & Continuous Improvement Culture

- Kaizen philosophy and tools
- PDCA cycle implementation
- Employee engagement systems
- Suggestion schemes
- Daily improvement routines
- **Case Study:** Food processing plant achieves 25% productivity increase via Kaizen events

Module 5: Six Sigma Integration for Quality Improvement

- DMAIC methodology
- Defect reduction strategies
- Process capability improvement
- Statistical process control basics
- Root cause failure analysis
- **Case Study:** Oil refinery reduces defect rate by 40% using Six Sigma DMAIC

Module 6: Total Productive Maintenance (TPM)

- Autonomous maintenance principles
- Planned maintenance systems
- Equipment reliability improvement
- OEE enhancement techniques
- Breakdown reduction strategies
- **Case Study:** Manufacturing plant improves OEE from 60% to 82% using TPM

Module 7: Just-in-Time (JIT) & Inventory Optimization

- Pull system vs push system
- Kanban implementation
- Inventory reduction techniques
- Supplier integration strategies
- Demand-driven production
- **Case Study:** Beverage company reduces inventory holding cost by 30%

Module 8: Lean Leadership & Digital Lean Transformation

- Lean leadership mindset

- Change management strategies
- Industry 4.0 integration
- Digital Lean tools & dashboards
- Performance measurement systems
- **Case Study:** Smart factory improves efficiency by 28% using digital Lean dashboards

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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