# Process Excellence Leadership in Manufacturing Training Course

Professional Development Training Course Outline

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

## Course Introduction

In today’s highly competitive global manufacturing landscape, organizations are under constant pressure to improve operational efficiency, productivity, cost optimization, and quality excellence. Process Excellence Leadership in Manufacturing Training Course is designed to equip professionals with advanced capabilities in Lean Manufacturing, Six Sigma, Total Productive Maintenance,Value Stream Optimization, and Industry 4.0-driven smart operations. This program builds strong leadership competencies to drive continuous improvement (Kaizen), waste elimination (Muda reduction), and end-to-end process transformation across manufacturing ecosystems.

With the rapid adoption of digital manufacturing, IoT-enabled production systems, AI-driven analytics, and smart factories, leaders must be able to integrate traditional excellence tools with modern technologies. This course bridges that gap by developing strategic and operational expertise in OEE improvement, supply chain resilience, predictive maintenance, and data-driven decision-making. Participants will learn how to lead high-performance teams, implement scalable process improvements, and establish a culture of operational excellence and sustainable manufacturing performance.

## Programme Curriculum

**Process Excellence Leadership in Manufacturing Training Course**

**Introduction**

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**Course Duration**

5 days

**Course Objectives**

1. Master Lean Manufacturing principles for waste elimination and efficiency improvement
2. Apply Six Sigma DMAIC methodology for defect reduction and process stability
3. Develop expertise in Total Productive Maintenance (TPM) implementation
4. Enhance OEE (Overall Equipment Effectiveness) performance across production lines
5. Implement Value Stream Mapping (VSM) for process optimization
6. Build capabilities in Industry 4.0 smart manufacturing systems
7. Strengthen data-driven decision-making using manufacturing analytics
8. Lead continuous improvement (Kaizen) initiatives effectively
9. Improve supply chain resilience and agility
10. Integrate predictive maintenance and IoT-based monitoring systems
11. Develop leadership skills for operational excellence transformation
12. Reduce production costs through lean cost optimization strategies
13. Establish a culture of high-performance manufacturing excellence

**Target Audience**

1. Manufacturing Managers & Plant Heads
2. Production Supervisors & Line Leaders
3. Quality Assurance & Quality Control Professionals
4. Industrial Engineers & Process Engineers
5. Supply Chain & Operations Managers
6. Continuous Improvement / Lean / Six Sigma Professionals
7. Maintenance & Reliability Engineers
8. Senior Executives driving Operational Excellence initiatives

**Course Modules**

**Module 1: Foundations of Process Excellence in Manufacturing**

- Introduction to Operational Excellence frameworks
- Principles of Lean Thinking and Waste Reduction (Muda, Mura, Muri)
- Understanding customer value and process flow
- Role of leadership in process transformation
- Alignment of KPIs with business performance

- **Case Study:** A FMCG manufacturing plant reduced cycle time by 28% using Lean fundamentals and process standardization.

**Module 2: Lean Manufacturing & Value Stream Mapping**

- Principles of Lean Manufacturing system design
- Advanced Value Stream Mapping (Current & Future State)
- Identification of bottlenecks and non-value-added activities
- Pull system and Just-in-Time (JIT) implementation
- Continuous flow production strategies
- **Case Study:** Automotive supplier optimized workflow and reduced inventory holding cost by 35%.

**Module 3: Six Sigma & DMAIC Methodology**

- Introduction to **Six Sigma framework**
- DMAIC phases (Define, Measure, Analyze, Improve, Control)
- Root cause analysis tools (Fishbone, 5 Whys)
- Statistical process control (SPC)
- Process capability improvement techniques
- **Case Study:** Electronics manufacturer reduced defect rate from 6% to 1.2% using DMAIC.

**Module 4: Total Productive Maintenance (TPM)**

- Pillars of **TPM implementation**
- Autonomous maintenance strategies
- Planned maintenance scheduling systems
- Breakdown reduction techniques
- Equipment lifecycle optimization
- **Case Study:** Packaging company improved machine uptime by 22% through TPM deployment.

**Module 5: OEE & Performance Measurement Systems**

- Understanding **Overall Equipment Effectiveness (OEE)**
- Availability, Performance, Quality metrics
- Loss analysis and downtime tracking
- Real-time production monitoring systems
- Benchmarking manufacturing performance
- **Case Study:** Steel plant increased OEE from 62% to 81% through performance analytics.

**Module 6: Industry 4.0 & Smart Manufacturing**

- Introduction to **Smart Factory ecosystem**
- IoT integration in manufacturing operations
- AI & Machine Learning in production optimization
- Digital twins and simulation models
- Cyber-physical systems in production
- **Case Study:** Pharmaceutical company improved batch traceability using IoT-enabled systems.

**Module 7: Leadership in Continuous Improvement Culture**

- Role of leaders in **Kaizen culture development**
- Change management in manufacturing environments

- Employee engagement in improvement initiatives
- Problem-solving leadership techniques
- Building high-performance teams
- **Case Study:** Consumer goods company implemented Kaizen circles leading to 18% productivity growth.

**Module 8: Supply Chain Excellence & Operational Strategy**

- End-to-end **supply chain optimization**
- Demand forecasting and inventory control
- Risk management and supply chain resilience
- Integration of digital supply networks
- Strategic alignment of operations with business goals
- **Case Study:** Manufacturing distributor reduced supply delays by 40% through agile planning systems.

## 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