



## Manufacturing Excellence Training Course



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## Introduction:

Building Manufacturing Excellence into the Process Industry has been designed to explain the main factors of operational excellence and how to build them into a coherent improvement program for the process industry. The latest tools and techniques are introduced and explained with a minimum of jargon so that delegates can see how to use them. In this course on Manufacturing Excellence, participants will be equipped with the methodologies and practices that propel businesses to the forefront of global manufacturing excellence.

From integrated manufacturing excellence models to tools and systems underpinning continuous improvement, each module empowers professionals to implement strategies for outstanding operational performance. By delving into the meaning of manufacturing excellence, attendees will evolve into manufacturing excellence specialists capable of transforming their organizations.

## Targeted Groups:

- Operations Professionals.
- Process Professionals.
- Reliability and Maintenance Professionals.
- Safety Professionals.
- Other professionals are involved in process improvement.

## Course Objectives:

At the end of this manufacturing excellence course, participants will be able to:

- Describe how to apply the total quality management TQM approach to drive quality excellence within your organization.
- Analyze manufacturing systems against best practices, acquiring relevant techniques in setting up a world-class quality system.
- Discuss the various frameworks, standards, models and techniques that will enable you to build a productive and cost-efficient manufacturing system.
- Evaluate and eliminate non-value activities that hinder process and material flow in manufacturing processes.
- Identify all the various dimensions and principles of quality management.
- Explain various concepts and techniques required for problem-solving and process improvement.

## Targeted Competencies:

Participants' competencies in this manufacturing excellence training will be able to:

- Lean Manufacturing.
- Six Sigma Methodologies.
- Continuous Improvement.
- Quality Management Systems.
- Process Optimization.
- Supply Chain Management.
- Operational Efficiency.
- Waste Reduction Techniques.
- Production Planning and Control.
- Maintenance Management.
- Safety and Compliance Standards.
- Innovation and Technology Integration.
- Leadership and Team Management.
- Data Analysis and Decision-Making.
- Problem-Solving Skills.

## Course Content:

### Unit 1: Operational Excellence Fundamentals:

- Operational Excellence: Finding Hidden Opportunities in Your Organization.
- Problem Solving and Root Cause Analysis.
- Waste Reduction.
- Standard Work and Process Mapping.

### Unit 2: Operational Excellence Core Tools:

- Principles of Lean Manufacturing Workshop with Simulation.
- Value Stream Management.
- Problem Solving and Root Cause Analysis.
- Workplace Organization 5S and Visual Management.
- Changeover Reduction.
- Total Productive Maintenance.
- Error Proofing.
- Effective Kaizen Events.
- Cellular Manufacturing.

### **Unit 3: Quality System Fundamentals:**

- Quality System Executive.
- Quality System Fundamentals for the Non-Quality Professional.
- Quality Management System Internal Auditor:
  - ISO 9001-2015.
  - AS9100 rev D.
  - IATF 16949-2016.
  - ISO 13485-2016.

### **Unit 4: Quality Management System Core Tools:**

- Advanced Product Quality Planning.
- Production Part Approval Process.
- Process Failure Mode and Effects Analysis.
- Measurement System Analysis.
- Statistical Process Control.

### **Unit 5: Quality Inspector/Technician:**

- Problem Solving and Root Cause Analysis.
- Statistics and Process Control.
- Metrology and Gage Repeatability and Reproducibility.