

Lean Manufacturing Tools

LSS021

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The concept of Lean Manufacturing was developed in the early 1990s from studies of the Toyota Production System. It focuses on eliminating waste in processes, waste being anything that impedes the flow of product as it is being transformed in the value chain. Lean Manufacturing, to coin a phrase means 'getting product to where it is needed, when it is needed, in the quantity needed'. Quality problems, buffer stock, unreliable machines, inefficient process layout, all impede flow in the value chain. Lean Manufacturing uses a variety of tools focusing on the elimination or reduction of these issues.

This three day course is designed to give the delegates a detailed knowledge of the key tools of Lean Manufacturing such that the delegate will be in a position to help transform their organisation into a leaner and more competitive enterprise. The workshop presents the concepts, tools and techniques involved in the practical application of Lean Manufacturing Tools using a series of easy to understand modules and exercises.

Duration & Price

Duration: 3 days Delivery mode: This programme is available In-Company

Dates & Locations

In-Company training programmes are customised for your organisations specific needs. Most In-Company training is now delivered virtually.

In-Company Training

Please contact us for more information on our In-Company training options

What's covered?

Day 1

Unit 1 – Lean Thinking

- History of Lean Manufacturing
- Differences between Lean Manufacturing and Mass Production
- The 5 Lean Principles
- Understanding Value (in the eyes of the customer)
- Recognizing the 7 wastes

Unit 2 – Takt Time and Standard Work

- The benefits of a Standard Work System
- The elements of Standard Work
- Conducting Process Observation to determine element cycle times
- Configuring Standard Work for minimum use of labour, materials and equipment
- Documenting results on a Standard Work Chart

Day 2

Unit 3 – Lean Material Systems and Kanban

- The benefits of a Kanban system
- Selecting an appropriate Kanban system
- Setting up a Kanban systems (calculating the number of cards required)
- The benefits of a Timed Delivery route

<u>Unit 4 – Improvement Cycles</u>

- Understanding the Plan-Do-Check-Act (PDCA) improvement cycle
- Selecting appropriate improvement tools
- Distinguishing between Root causes, Direct causes and Contributory causes
- Identifying appropriate Corrective and Preventive actions
- Construct a problem definition and SMART objectives
- Differences between Incremental and Breakthrough Improvement

Unit 5 – Value Stream Mapping

- The benefits of Value Stream Mapping
- The four stages of Value Stream Mapping
- Selecting appropriate products/product families
- Creating the Current State Value Stream Map
- Assessing the Current State Value Stream Map
- Developing the Future State Value Stream Map
- Creating an action plan to achieve the desired improvements

Day 3

Unit 6 – Lean Foundations

- The benefits of Workplace Organisation
- Implementing 5S Workplace Organisation
- Implementing appropriate Visual Control Systems
- The benefits of Total Productive Maintenance (TPM)
- Understanding the elements of the Overall Equipment Effectiveness (OEE) metric
- Implementing a basic Total Productive Maintenance (TPM) system to improve Overall Equipment Effectiveness (OEE)

Unit 7 – Quick Changeovers (The SMED System)

- The benefits of a Single Minute Exchange of Die (SMED) System
- The four stages of SMED
- Implementing SMED to reduce Changeover time

<u>Unit 8 – Kaizen Events</u>

- The benefits of a Kaizen Events
- Appropriate situations for a Kaizen Event
- Selecting appropriate team-members
- Identifying Kaizen Event goals
- Participating in a Kaizen Event

Unit 9 - Quality, Mistake-proofing and Line Layout

- Understanding the interaction between quality and lean manufacturing
- The principles of Mistake-proofing
- Selecting appropriate mistake proofing devices
- Selecting or devising an appropriate line layout to minimise waste

Who should participate?

This course is intended for personnel working within manufacturing and manufacturing support functions (such as Materials, Quality, and Engineering). The course is aimed at Engineers, Technicians, Production Supervisors/Line Leaders, and Materials/Supply Chain/Logistics Supervisors. Each delegate will be required to identify a lean opportunity within their organisation and complete a lean improvement project as part of this course.

What will I learn?

Participants achieve the following learning outcomes from the programme;

- Conduct lean improvement activities in their own areas of responsibility
- Assist senior management in implementing Lean Principles in a wider manufacturing environment

What Our Learners Say

We believe in excellence through transparency and continuous improvement. That's why we invite all our delegates to share their experiences on <u>CourseCheck.com</u>, an independent platform dedicated to genuine, unfiltered feedback. Learner insights help us not only to enhance our training programmes but also empower potential learners to make informed decisions. Click on the link below to read firsthand experiences and testimonials from past learners.



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