



Lean Six Sigma Green Belt

Barcelona (Spain) -

09-11-2026

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Course code: PQ440 From: 09-11-2026 Venue: Barcelona (Spain) - Course Fees: 5000 £

Course Introduction

The Lean Six Sigma Green Belt course provides participants with a comprehensive understanding of the Lean Six Sigma methodology and its application in improving organizational performance. It equips learners with the knowledge of process improvement concepts, quality management principles, and data-driven decision-making approaches used to reduce defects, eliminate waste, and enhance operational efficiency.

This course is designed for professionals who participate in or lead improvement projects within their departments and contribute to broader organizational excellence initiatives.

Course Objectives

By the end of this course, participants will be able to:

- Understand Lean Six Sigma principles and framework.
- Apply the DMAIC methodology to process improvement initiatives.
- Identify and analyze process variation and inefficiencies.
- Use basic statistical and quality tools for decision-making.
- Lead or support Lean Six Sigma improvement projects.
- Interpret process performance data and KPIs.
- Identify root causes of process problems and propose solutions.
- Contribute to continuous improvement and operational excellence programs.

Target Audience

- Quality Engineers and Analysts
- Process Improvement Professionals
- Operations Managers and Supervisors
- Project Managers
- Engineers and Technical Staff
- Supply Chain and Logistics Professionals

- Manufacturing and Service Industry Professionals
- Anyone involved in performance improvement initiatives

Course Outline

Day 1

Introduction to Lean Six Sigma

- Overview of Lean Six Sigma methodology
- History and evolution of quality management
- Lean principles and Six Sigma concepts
- Roles and responsibilities (Green Belt role)
- Overview of DMAIC framework

Day 2

Define and Measure Phases

- Project selection and scoping
- Voice of the Customer (VOC)
- Critical-to-Quality (CTQ) requirements
- Process mapping and documentation
- Data collection planning
- Introduction to process measurement

Day 3

Analyze Phase

- Introduction to process variation
- Root cause analysis techniques
- Pareto analysis
- Cause-and-effect (Fishbone) diagrams
- Hypothesis generation

- Identifying key drivers of performance

Day 4

Improve Phase

- Solution development techniques
- Brainstorming and prioritization methods
- Risk assessment of solutions
- Process redesign concepts
- Pilot implementation concepts
- Change management basics

Day 5

Control Phase and Project Execution

- Control plans and standardization
- Performance monitoring and KPIs
- Sustaining improvements
- Documentation of improvements
- Overview of Lean Six Sigma project lifecycle
- Final review and Green Belt responsibilities