



LEAN SIX SIGMA GREEN BELT FOR PROCESS EXCELLENCE TRAINING COURSE

23 - 27 Nov 2026

BARCELONA

5900 € (PER PERSON)

REF: #QUA2653_137708



COURSE INTRODUCTION / OVERVIEW:

This comprehensive training course is designed to equip professionals with the essential skills to drive process improvement initiatives within their organizations. It provides a thorough understanding of the Lean Six Sigma methodology, a globally recognized, data-driven approach for eliminating waste and reducing process variation. Participants will delve into the synergistic power of combining Lean principles, which focus on speed and efficiency, with Six Sigma's rigorous statistical methods for quality enhancement. The curriculum is structured around the renowned DMAIC (Define, Measure, Analyze, Improve, Control) framework, a systematic five-phase approach to problem-solving. As influential author Dr. Mikel J. Harry, a key architect of Six Sigma, articulated, the goal is to achieve near-perfect processes. This course moves beyond theoretical knowledge, as detailed in texts like "The Six Sigma Handbook," by emphasizing practical application through real-world case studies and simulations. BIG BEN Training Center has developed this program to empower participants to lead Green Belt level projects, delivering measurable and sustainable improvements that directly impact business performance, customer satisfaction, and operational excellence.

TARGET AUDIENCE / THIS TRAINING COURSE IS SUITABLE FOR:

- Process Improvement Specialists.
- Quality Assurance Engineers and Managers.
- Project Managers and Team Leaders.
- Operations Managers and Supervisors.
- Business Analysts.
- IT Professionals involved in process optimization.
- Healthcare Administrators.
- Financial Analysts and Managers.
- Individuals aspiring to a career in quality management.



TARGET SECTORS AND INDUSTRIES:

- Manufacturing and Production.
- Healthcare and Pharmaceuticals.
- Banking, Finance, and Insurance.
- Information Technology and Telecommunications.
- Logistics and Supply Chain Management.
- Construction and Engineering.
- Governmental agencies and public sector organizations.
- Hospitality and Service Industries.
- Consulting Services.

TARGET ORGANIZATIONS DEPARTMENTS:

- Operations and Production.
- Quality Assurance and Quality Control.
- Project Management Office (PMO).
- Research and Development (R&D).
- Customer Service and Support.
- Finance and Accounting.
- Human Resources.
- Information Technology (IT).
- Supply Chain and Logistics.



COURSE OFFERINGS:

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

- Master the principles and philosophy behind Lean and Six Sigma methodologies.
- Effectively apply the five-phase DMAIC framework to solve business problems.
- Utilize a variety of process improvement tools and statistical techniques.
- Lead and execute Lean Six Sigma Green Belt level projects successfully.
- Identify and eliminate sources of waste and non-value-added activities in processes.
- Collect and analyze data to make informed, data-driven decisions.
- Develop and implement control plans to sustain process improvements.
- Communicate project progress and results effectively to stakeholders.
- Facilitate team-based improvement activities and Kaizen events.
- Translate customer requirements into measurable critical-to-quality (CTQ) characteristics.

COURSE METHODOLOGY:

The training methodology at BIG BEN Training Center is designed to be highly interactive, engaging, and application-focused. We believe that adult learning is most effective when it combines theoretical knowledge with practical experience. This course utilizes a blended learning approach, incorporating expert-led instruction, dynamic group discussions, and collaborative team exercises. Participants will work through real-world case studies to analyze complex business problems and develop viable solutions using Lean Six Sigma tools. Hands-on workshops and process simulations will provide a safe environment to practice techniques like value stream mapping, statistical process control, and root cause analysis. The instructor will act as a facilitator, guiding participants through the material and providing personalized feedback. A significant emphasis is placed on peer-to-peer learning, allowing participants to share experiences and insights from their respective industries. This immersive approach ensures that participants not only understand the concepts but are also confident in their ability to apply them to drive tangible process improvements in their own work environments upon completion of the course.



COURSE AGENDA (COURSE UNITS):

UNIT ONE: FOUNDATIONS OF LEAN SIX SIGMA AND THE DEFINE PHASE

- Introduction to Lean principles and the eight wastes.
- Understanding the Six Sigma philosophy and its history.
- Roles and responsibilities within a Lean Six Sigma structure.
- Overview of the DMAIC and DMADV methodologies.
- Identifying potential projects and understanding business impact.
- Developing a project charter and defining the problem statement.
- Identifying stakeholders and creating a communication plan.
- Understanding the Voice of the Customer (VOC) and Critical to Quality (CTQ).

UNIT TWO: MASTERING THE MEASURE PHASE FOR DATA-DRIVEN INSIGHTS

- Developing a data collection plan.
- Introduction to basic statistics and data types.
- Understanding sampling methods and techniques.
- Performing Measurement System Analysis (MSA) and Gage R&R.
- Creating detailed process maps and value stream maps (VSM).
- Calculating process performance metrics like DPMO and Sigma level.
- Introduction to statistical software for data analysis.
- Establishing a baseline for process performance.



UNIT THREE: DEEP DIVE INTO THE ANALYZE PHASE FOR ROOT CAUSE IDENTIFICATION

- Conducting graphical data analysis using histograms, Pareto charts, and scatter plots.
- Identifying potential root causes using brainstorming and fishbone diagrams.
- Understanding process capability analysis (Cp, Cpk).
- Introduction to hypothesis testing concepts.
- Performing correlation and simple linear regression analysis.
- Validating root causes with data.
- Differentiating between common cause and special cause variation.
- Utilizing the 5 Whys technique for deeper analysis.

UNIT FOUR: DRIVING SOLUTIONS IN THE IMPROVE PHASE

- Generating potential solutions through creative thinking techniques.
- Evaluating and selecting the best solutions based on criteria.
- Introduction to Design of Experiments (DOE).
- Conducting Failure Mode and Effects Analysis (FMEA) for risk assessment.
- Developing pilot plans to test proposed solutions.
- Implementing improvement solutions on a small scale.
- Measuring the results of the implemented improvements.
- Cost-benefit analysis of proposed solutions.

UNIT FIVE: SUSTAINING GAINS THROUGH THE CONTROL PHASE AND PROJECT CLOSURE

- Developing a process control plan.
- Implementing Statistical Process Control (SPC) using control charts.
- Standardizing processes and updating documentation.
- Creating response plans for out-of-control situations.
- Training staff on the new and improved process.
- Calculating project savings and benefits.
- Finalizing project documentation and closing the project.
- Presenting project results to stakeholders and celebrating success.



FAQ:

QUALIFICATIONS REQUIRED FOR REGISTERING TO THIS COURSE?

There are no requirements.

HOW LONG IS EACH DAILY SESSION, AND WHAT IS THE TOTAL NUMBER OF TRAINING HOURS FOR THE COURSE?

This training course spans five days, with daily sessions ranging between 4 to 5 hours, including breaks and interactive activities, bringing the total duration to 20 - 25 training hours.

SOMETHING TO THINK ABOUT:

Beyond the statistical tools and methodologies, how can an organization's underlying culture be the single greatest enabler or inhibitor of a successful Lean Six Sigma deployment?

WHAT UNIQUE QUALITIES DOES THIS COURSE OFFER COMPARED TO OTHER COURSES?

This course distinguishes itself by focusing on the integrated application of Lean and Six Sigma, treating them not as separate toolkits but as a unified strategy for achieving operational excellence. While many programs concentrate heavily on statistical theory, our curriculum emphasizes a practical, hands-on approach where participants learn by doing. We move beyond mere tool memorization to cultivate a deep-seated problem-solving mindset. The course is built around a series of integrated case studies that evolve over the five days, allowing participants to apply the entire DMAIC cycle to a realistic business challenge. This narrative-driven learning ensures a more profound understanding of how different tools connect and build upon one another. Furthermore, our experienced instructors focus on the critical soft skills essential for a Green Belt, such as stakeholder management, team facilitation, and effective communication of complex data. The aim is not just to prepare participants for a certification exam, but to mold them into confident and competent process improvement leaders capable of delivering measurable results and driving a culture of continuous improvement within their organizations.