Lean Six Sigma in Supply Chain Management Training Course



09 - 13 Nov 2026

Cairo

3700 € (Per Person)

Ref: #PSC8879_260072

Course Introduction / Overview:

This intensive training course provides a comprehensive framework for applying Lean Six Sigma principles to achieve operational excellence within supply chain and logistics functions. The curriculum is designed to bridge the gap between theoretical knowledge and practical application, enabling participants to identify and eliminate waste, reduce process variation, and enhance value delivery across the entire supply chain. Drawing upon the foundational concepts articulated by pioneers like James P. Womack in works such as "Lean Thinking", this program emphasizes a systematic approach to process improvement. Participants will delve into the powerful DMAIC (Define, Measure, Analyze, Improve, Control) methodology, learning to leverage data-driven tools and statistical analysis to solve complex logistical challenges, from procurement and inventory management to distribution and customer fulfillment. BIG BEN Training Center has structured this course to empower professionals to lead impactful improvement projects, fostering a culture of continuous improvement that directly contributes to cost reduction, increased efficiency, and superior customer satisfaction in a competitive global market.

Target Audience / This training course is suitable for:

- Supply Chain Managers and Analysts.
- Logistics and Distribution Supervisors.
- Operations Managers.
- Procurement and Sourcing Professionals.
- Warehouse Managers.
- Process Improvement Specialists and Consultants.
- Quality Assurance and Control Personnel.
- Inventory Planners and Managers.
- Manufacturing and Production Planners.
- Individuals aspiring to a career in supply chain management.

Target Sectors and Industries:

- Manufacturing and Industrial Production.
- Retail and Consumer Goods.
- Logistics, Transportation, and Distribution Services.
- E-commerce and Direct-to-Consumer Businesses.
- Healthcare and Pharmaceutical Supply Chains.
- Automotive and Aerospace Industries.
- Food and Beverage Sector.
- Governmental agencies and public sector logistics operations.
- Technology and Electronics Manufacturing.

Target Organizations Departments:

- Supply Chain Management.
- Logistics and Transportation.
- Procurement and Purchasing.
- Operations Management.
- Warehousing and Inventory Control.
- Quality Assurance and Quality Control.
- Manufacturing and Production.
- Strategic Planning and Business Development.
- Customer Service and Fulfillment.

Course Offerings:

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

- Apply the DMAIC methodology to solve complex supply chain problems.
- Utilize Value Stream Mapping to identify waste and bottlenecks in logistical processes.
- Conduct root cause analysis using tools like Fishbone Diagrams and 5 Whys.
- Implement statistical process control (SPC) to monitor and control supply chain performance.
- Lead Kaizen events to drive rapid and continuous improvement.
- Develop effective project charters and data collection plans for Six Sigma projects.
- Reduce the eight wastes of Lean within a supply chain context.
- Improve inventory management, demand forecasting, and supplier quality.
- Establish robust control plans to sustain process improvements over the long term.
- Foster a culture of data-driven decision-making and operational excellence.

Course Methodology:

The training methodology at BIG BEN Training Center is designed to be highly interactive, immersive, and practical, ensuring that participants can immediately apply their learning in a professional context. This course moves beyond traditional lectures by integrating a dynamic blend of expert-led instruction, real-world supply chain case studies, and collaborative group workshops. Participants will engage in hands-on exercises and simulations that mirror actual logistical challenges, allowing them to practice using Lean Six Sigma tools like Value Stream Mapping and Statistical Process Control in a controlled environment. A significant portion of the training is dedicated to team-based projects where attendees work together to analyze a supply chain problem, propose a data-backed solution, and present their findings. This collaborative approach enhances problem-solving skills and promotes peer-to-peer learning. Our experienced instructors facilitate an open and engaging atmosphere, providing continuous feedback and personalized guidance to ensure every participant masters the core competencies and develops the confidence to lead impactful process improvement initiatives within their organizations.

Course Agenda (Course Units):

Unit One Foundations of Lean Six Sigma in Supply Chains

- Introduction to Lean Thinking and its core principles.
- Understanding the Six Sigma methodology and its focus on variation reduction.
- The integration of Lean and Six Sigma for supply chain optimization.
- Identifying the eight wastes (Muda) in logistics and operations.
- Overview of the DMAIC and DMADV frameworks.
- Roles and responsibilities in a Lean Six Sigma organization.
- The critical link between process improvement and business strategy.

Unit Two Define and Measure for Supply Chain Excellence

- Developing an effective supply chain project charter.
- Defining project scope, objectives, and key performance indicators (KPIs).
- Capturing the Voice of the Customer (VOC) in supply chain processes.
- Techniques for process mapping, including SIPOC and flowcharts.
- Developing a comprehensive data collection plan.
- Understanding data types and measurement scales.
- Introduction to basic statistics and data visualization for supply chain metrics.

Unit Three Analyze Phase for Root Cause Identification

- Conducting detailed Value Stream Mapping (VSM) for supply chains.
- Identifying value-added versus non-value-added activities.
- Performing root cause analysis with Fishbone Diagrams and the 5 Whys technique.
- Introduction to statistical analysis for hypothesis testing.
- Graphical analysis tools for identifying patterns and relationships in data.
- Process capability analysis (Cp and Cpk) for supply chain processes.
- Failure Mode and Effects Analysis (FMEA) for risk mitigation in logistics.

Unit Four Improve and Control for Sustainable Results

- Brainstorming and selecting effective improvement solutions.
- Implementing Kaizen events for rapid process improvement.
- Utilizing the 5S methodology for workplace organization in warehouses and distribution centers.
- Introduction to mistake-proofing (Poka-Yoke) in supply chain operations.
- Developing and implementing pilot solutions.
- Introduction to Statistical Process Control (SPC) and control charts.
- Creating robust control plans to sustain gains and monitor performance.

Unit Five Advanced Lean Six Sigma Applications and Leadership

- The role of leadership in driving a continuous improvement culture.
- Managing change and overcoming resistance in improvement projects.
- Integrating technology and automation with Lean Six Sigma principles.
- Applying Lean Six Sigma to sustainable and green supply chain initiatives.
- Advanced tools for supply chain design and optimization.
- Managing a portfolio of Lean Six Sigma projects.
- Final project simulation and presentation of findings.

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:

Considering the rise of AI and automation, how might the traditional DMAIC cycle need to adapt to effectively optimize the digital supply chains of the future?

What unique qualities does this course offer compared to other courses?

This course distinguishes itself by moving beyond a generic overview of Lean Six Sigma to offer a specialized, in-depth application of these methodologies specifically within the complex ecosystem of supply chain management. Unlike programs that teach tools in isolation, our curriculum is built around an integrated framework that directly addresses the unique challenges of logistics, procurement, inventory, and distribution. The core strength lies in its pragmatic approach; participants do not just learn theory but actively engage with real-world supply chain case studies, dissecting inefficiencies in global distribution networks and redesigning procurement workflows. We emphasize the development of analytical and critical thinking skills, teaching participants how to interpret data to tell a compelling story about process performance. Furthermore, the course content is meticulously structured to build competencies progressively, from foundational principles to the leadership skills required to champion a culture of continuous improvement. The focus is on creating practitioners who can deliver measurable business results—reduced costs, faster cycle times, and enhanced customer value—making this a transformative professional development experience rather than a simple academic exercise.