BLACKBIRD FOR TRAINING

Lean Six Sigma Project Management Course

27 – 31 December 2026
Cairo (Egypt)



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Introduction

Organizations across all industries are under increasing pressure to improve operational performance, deliver higher-quality products and services, reduce waste, and maximize the value of available resources. Achieving these objectives requires more than traditional project management practices. It demands a structured methodology that combines process improvement, quality management, and data-driven decision-making. Lean Six Sigma has become one of the world's most widely adopted approaches for achieving operational excellence and sustainable business performance.

The Lean Six Sigma Project Management Course provides a comprehensive introduction to integrating Lean principles with Six Sigma methodologies to improve project outcomes and organizational efficiency. Participants will explore how process improvement initiatives support project success, reduce operational variation, eliminate non-value-added activities, and strengthen quality management practices.

Throughout the course, participants will develop a solid understanding of the Define, Measure, Analyze, Improve, and Control DMAIC methodology, process mapping, performance measurement, root cause analysis, waste reduction, continuous improvement, risk management, and operational excellence. The course also demonstrates how Lean Six Sigma principles can be applied across government organizations, oil and gas companies, financial institutions, telecommunications, healthcare, manufacturing, and service industries to improve business performance and support strategic objectives.

Course Objectives

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

- Understand the fundamental principles of Lean Six Sigma and project management.
- Explain the relationship between Lean Management, Six Sigma, and Project Management.
- Apply the Define, Measure, Analyze, Improve, and Control DMAIC methodology.
- Analyze business processes to identify improvement opportunities.
- Identify waste and non-value-added activities within operational processes.
- Apply root cause analysis techniques to operational challenges.
- Measure process performance using appropriate performance indicators.
- Develop structured process improvement plans.
- Improve operational quality and business performance.
- Reduce process variation and operational inefficiencies.
- Support continuous improvement initiatives across organizations.
- Strengthen project planning and execution using Lean Six Sigma principles.
- Manage risks associated with process improvement initiatives.
- Monitor improvement outcomes and sustain long-term performance.
- Contribute to operational excellence and organizational effectiveness.



Course Outlines

Day One: Introduction to Lean Six Sigma and Project Management

- Introduction to Lean Six Sigma concepts and organizational benefits.
- Fundamental principles of Lean Management.
- Six Sigma principles and quality management concepts.
- Relationship between project management and process improvement.
- Project life cycle and its key phases.
- Understanding value within business processes.
- Types of operational waste and their organizational impact.
- Roles and responsibilities within Lean Six Sigma initiatives.

Day Two: Process Analysis and Performance Measurement

- Introduction to the Define, Measure, Analyze, Improve, and Control DMAIC methodology.
- Identifying operational problems and improvement priorities.
- Defining project scope and objectives.
- Process mapping and workflow analysis.
- Data collection methods for process evaluation.
- Identifying bottlenecks and sources of operational waste.
- Distinguishing value-added and non-value-added activities.
- Using Key Performance Indicators KPIs to evaluate operational performance.

Day Three: Problem Analysis and Quality Improvement Tools

- Root cause analysis techniques.
- Cause-and-effect diagram.
- Five Whys methodology.
- Pareto analysis for prioritizing improvement opportunities.
- Process performance evaluation.
- Selecting appropriate improvement solutions.
- Developing structured process improvement plans.
- Monitoring improvement results and performance outcomes.

Day Four: Implementing Lean Six Sigma Projects

- Planning Lean Six Sigma improvement projects.
- Integrating process improvement tools into project management.
- Risk management for improvement initiatives.
- Monitoring project implementation.
- Measuring project performance.
- Documenting improvement outcomes.
- Performance reporting and progress tracking.
- Sustaining organizational improvements.



Day Five: Operational Excellence and Continuous Improvement

- Principles of operational excellence.
- Developing continuous improvement strategies.
- Monitoring post-implementation performance.
- Change management for sustainable improvement.
- Governance and organizational performance.
- International best practices in process improvement.
- Developing future improvement plans.
- Comprehensive review of course topics.

Why Attend this Course: Wins & Losses!

- Gain a strong foundation in Lean Six Sigma Project Management principles.
- Improve their ability to analyze and optimize business processes.
- Develop practical skills in quality management and operational improvement.
- Enhance decision-making through performance measurement and data analysis.
- Strengthen project planning and execution capabilities.
- Improve organizational efficiency by reducing waste and process variation.
- Support continuous improvement initiatives across departments.
- Contribute to operational excellence and long-term organizational performance.

Conclusion

Lean Six Sigma has become one of the most effective methodologies for improving project performance, enhancing operational efficiency, and strengthening quality management across industries. By combining Lean principles with Six Sigma techniques, organizations can systematically eliminate waste, reduce process variation, improve decision-making, and achieve measurable business improvements.

The Lean Six Sigma Project Management Course provides participants with a structured understanding of process improvement, quality management, operational excellence, performance measurement, risk management, and continuous improvement. The knowledge and methodologies covered throughout the course support professionals in managing projects more effectively, improving business processes, and contributing to sustainable organizational success through internationally recognized best practices.

