

# € TRAINING

ASQ Approved Lean Six Sigma Black Belt



18 - 22 November 2024  
Singapore



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REF: A1627 DATE: 18 - 22 November 2024 Venue: Singapore - Fee: 6325 Euro

## Introduction:

This program is designed to prepare participants for the certification exam only.

This training program offers comprehensive training on Lean Six Sigma methodologies and techniques approved by the American Society for Quality ASQ. It empowers participants to drive organizational excellence through data-driven decision-making and continuous improvement initiatives.

## Program Objectives:

At the end of this program, participants will be able to:

- Understand and apply Lean Six Sigma principles and methodologies effectively.
- Lead DMAIC projects and drive process improvement initiatives as Black Belts.
- Identify and prioritize improvement opportunities using statistical tools and techniques.
- Analyze data to identify root causes and develop data-driven solutions.
- Implement and sustain process improvements to achieve organizational goals.
- Prepare for the certification exam.

## Targeted Audience:

- Quality professionals seeking advanced certification in Lean Six Sigma.
- Project managers and team leaders involved in process improvement initiatives.
- Engineers and analysts responsible for quality and efficiency improvements.
- Professionals aiming to lead and mentor Lean Six Sigma project teams.
- Employees seeking career advancement opportunities in quality management.

## Program Outlines:

Unit 1:

Introduction to Lean Six Sigma:

- Overview of Lean Six Sigma methodology and its applications across industries.

- Understanding the DMAIC Define, Measure, Analyze, Improve, Control methodology.
- Key concepts and principles of Lean and Six Sigma, including waste reduction and variation reduction.
- Role and responsibilities of a Lean Six Sigma Black Belt in leading improvement projects.
- Importance of customer focus and data-driven decision-making in Lean Six Sigma.

## Unit 2:

### Define Phase Fundamentals:

- Understanding the Define phase of the DMAIC process.
- Defining project goals, objectives, and scope clearly.
- Identifying project stakeholders and their requirements.
- Developing project charters and defining project metrics.
- Utilizing tools such as SIPOC Suppliers, Inputs, Process, Outputs, Customers diagrams.

## Unit 3:

### Measure Phase Essentials:

- Understanding the Measure phase of the DMAIC process.
- Selecting appropriate metrics to measure process performance.
- Conducting process mapping and identifying key process variables.
- Performing capability analysis and establishing baseline performance.
- Conducting measurement system analysis MSA to ensure data accuracy.

## Unit 4:

### Analyze Phase Basics:

- Understanding the Analyze phase of the DMAIC process.
- Identifying root causes of process variation and defects.
- Applying statistical tools such as hypothesis testing and regression analysis.
- Conducting Pareto analysis and cause-and-effect analysis.
- Utilizing process mapping and value stream analysis to identify improvement opportunities.



## Unit 5:

### Improve and Control Phase Fundamentals:

- Understanding the Improve and Control phases of the DMAIC process.
- Generating and evaluating potential solutions to address root causes.
- Developing implementation plans and conducting pilot tests.
- Establishing control plans to sustain improvements over time.
- Monitoring process performance and implementing corrective actions as needed.
- Preparation for the certified exam.

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