



ASQ Approved Lean Six Sigma Black Belt



29 April - 3 May 2024  
Madrid (Spain)



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REF: A1731 DATE: 29 April - 3 May 2024 Venue: Madrid (Spain) - Fee: 5300 Euro

## Introduction:

The Lean Six Sigma Black Belt training course will give you a detailed overview of concepts of Lean Six Sigma methodologies, this is crucial, especially for manufacturing industries, but slowly even services, retail, pharma, and other sectors are completely benefitting from the use of Lean Six Sigma practices to streamline their processes across departments. Lean Six Sigma Green Belt, Lean Six Sigma Black Belt, and Lean Six Sigma Yellow Belt are some of the most popular Six Sigma certification courses.

## Course Objectives:

At the end of this course the participants will be able to:

- Develop the Six Sigma methodology and apply its roadmap.
- Apply the principles of the Six Sigma 'DMAIC' performance improvement model.
- Examine in detail the various elements of building a complete project for improvement.
- Develop statistical hypotheses using simple statistical tools.
- Use quantifiable tools to solve problems related to an improvement project.
- Eliminate waste and defects by applying Lean and Six Sigma.
- Collect, analyze, and quantify data that enable process improvements.
- Employ statistical analysis using statistical tools and software.

## Targeted Audience:

- Senior Managers & Team Leaders
- Project Managers
- Quality Assurance Professionals
- Software Professionals

## Course Outlines:

### Unit 1:

- Understanding Six Sigma
- Six Sigma Fundamentals
- Selecting Projects
- Elements of Waste

### Unit 2:

- Process Discovery
- Six Sigma Statistics
- Measurement System Analysis
- Process Capability

### Unit 3:

- $\bar{X}$  Sifting
- Inferential Statistics
- Intro to Hypothesis Testing
- Hypothesis Testing Normal Data Part 1
- Hypothesis Testing Normal Data Part 2
- Hypothesis Testing Non-Normal Data Part 1
- Hypothesis Testing Non-Normal Data Part 2

#### Unit 4:

- Process Modeling Regression
- Advanced Process Modeling
- Designing Experiments
- Experimental Methods
- Full Factorial Experiments
- Fractional Factorial Experiments

#### Unit 5:

- Advanced Experiments
- Capability Analysis
- Lean Controls
- Defect Controls
- Statistical Process Control - SPC
- Six Sigma Control Plans