Lean Six Sigma Black Belt Certification Training

simplilearn

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Program **Overview:**

The Lean Six Sigma Black Belt training and certification course is designed to help you master the combined concepts of Lean and Six Sigma. This course will help you develop an in-depth understanding of the Six Sigma phases Define, Measure, Analyze, Improve, and Control (DMAIC) and how to maximize customer value while minimizing waste.

Program **Features:**

- 63 hours of blended learning
- 48 hours of Online self-paced learning
- 15 hours of instructor-led training
- 3 Lean Six Sigma Black Belt simulation exams
- 35 PDUs offered and six end-of-chapter quizzes
- Course completion certificate

Delivery **Mode:**

Blended - Online self-paced learning and live virtual classroom

Prerequisites:

There are no prerequisites required to sit for the IASSC Certified Lean Six Sigma Black Belt exam. Formal Lean Six Sigma training from a verified Lean Six Sigma trainer or corporate program is suggested if applicants want to increase their chances of passing the exam. It is also recommended that exam takers have some degree of real-world Lean Six Sigma work experience.

Target **Audience:**

- Senior management (especially if the company intends to implement Lean Six Sigma)
- Team leaders
- Software professionals
- Project managers
- Quality assurance engineers
- Software quality assurance team members
- Management students

Key Learning **Outcomes:**

At the end of Simplilearn's Lean Six Sigma Black Belt training, you will know how to:

- Apply Lean concepts such as 5S, waste reduction, process mapping, value stream mapping, and mistake proofing
- Apply basic and more advanced statistical analyses to determine the relationship between key inputs and process outputs
- Effectively manage team dynamics and understand how to work with multiple levels of leadership to remove barriers and achieve project success
- Close projects and hand over control to process owners
- Present projects to instructors, peers, and managers

Certification **Alignment:**

Our Certified Lean Six Sigma Black Belt is aligned with IASSC

Certification Details and **Criteria:**

Simplilearn offers two levels of Lean Six Sigma Black Belt Certification: Technical and Functional.

The Technical Certification is offered after the trainee:

- Completes 85 percent of the course or attends one complete batch
- Passes the LSSBB Certification Examination with a minimum 60 percent score

After certification, the trainee should submit a full-scale live DMAIC project for case review by the LSSBB faculty. Upon successful completion of the review, the trainee will be awarded a Lean Six Sigma Black Belt Functional Certification.

A typical full-scale DMAIC LSSBB project takes eight to nine months (1st Phase) to complete and must show a projected savings of at least $200,000.

IASSC **Certification-**

The exam fee is included for all regions except the Indian subcontinent and Africa.

The candidate can earn IASSC certification in Lean Six Sigma Black Belt by appearing for the IASSC Certified Lean Six Sigma Black Belt exam and scoring a minimum of 580 points out of a total of 750. Upon succeeding, the candidate will receive a certificate, suitable for framing, issued by the IASSC.

Course **Curriculum:**

Section 00 - Six Sigma Black Belt

- Welcome
- Six Sigma Black Belt
- Agenda
- What is SSBB
- Accreditation Institute
- Target Audience
- SSBB Exam Format
- Simplilearn LSSBB Course Offer
- Thank You

Session 01 - Overview

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- Overview
- Agenda

Lesson 01 - About LSSBB

- Agenda
- What is Six Sigma
- Six Sigma Roles and Responsibilities
- About SSBB
- LSSBB Roles and Responsibilities
- Summary

Lesson 02 - Organizational Roadblocks

- Agenda
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- Types of Organizational Roadblocks
- Change Resistance Curve
- Common Resistance Points
- Overcoming Resistance Points
- Force Field Analysis
- Summary

Lesson 03 - Role of Communication and Selection Criteria in Black Belt

- Agenda
- Black Belt Role Summary
- Black Belt Communication Expectations
- Black Belt Selection Criteria
- Summary

Lesson 04 - Overview of Continuous Improvement

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- Continual Improvement Process
- Continuous versus Continual Improvement
- Kaizen Continual Improvement
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- History of Lean
- Principles of Lean
- Key Benefits of Implementing Lean
- Why Lean before Six Sigma
- Summary

Lesson 06 - Lean Concepts Explained

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- Ms
- Types of Waste (TIMWOODS)
- Mottainai
- Hoshin Kanri
- Takt Time
- Cycle Time
- Lead Time
- Lead Time Assignment
- Production Cycle Efficiency
- Batch Size
- Every Part Every Interval (EPEI)
- EPEI Calculation Spreadsheet
- Batch Size Assignment
- Crew Size
- Crew Size Assignment
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- 3S Audit Worksheet
- SMED
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- Heijunka An Example
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- VSM Symbols
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- MAIC Approach to Problem Solving
- DMAIC versus DFSS
- DFSS Tools
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- Benchmarking
- MSA
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- KJ Diagram
- Quality Function Deployment (QFD)
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- HOQ
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- Qualifications of a Six Sigma Project
- Cornerstones of a Six Sigma Project
- Six Sigma Deployment Cycle Plan
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- Project Prioritization Matrix
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- Enterprise Wide Roles and Responsibilities
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- NPV and IRR, an Example
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- Y Baseline Performance
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- Measurement System Errors Illustrated
- Measurement System Discrimination
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- Sigma Shift

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- Best Subsets Regression and Stepwise Regression
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- Randomization
- Blocking
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- Coding and other DOE Terms
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- 2&sup2 Design
- 2&sup2 Design Summary
- General k Design
- Single Replicate of k Design
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- Nested Designs
- Split Plot Designs Introduction
- Taguchi's Designs
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- Brainstorming
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- Brainstorming Prioritization and Cost Benefit Analysis
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Lesson 05 - Piloting Validating and FMEA

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- Concepts of Variables Control Charts
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Lesson 04 - Introduction to Total Productive Maintenance

- Agenda
- Total Productive Maintenance (TPM)
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- Tools to Refer
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- Thank You

Practice **Projects:**

- V-Tech Hydraulic Solutions
- Elite Elegance

Customer **Reviews:**

Simhachalam Mamidi
Manager - Quality, Risk Advisory & IT Audit at Wipro

Excellent course with clear demonstration of concepts.

Gafoor Sarang
Director Operational Excellence at CSL Behring

Training was great; the trainer had good knowledge.

Nilesh T Naik
Manager Global Logistics at Datacard Group

It's really good to understand various decision making concepts before implementing them.

Namuduri A R Chandu
Project Manager at Geometric Ltd.

Trainer's knowledge is precise & has depth simplified to general terms & concepts are clear.

About **Us:**

Simplilearn is a leader in digital skills training, focused on the emerging technologies that are transforming our world. Our Blended Learning approach drives learner engagement and is backed by the industry's highest completion rates. Partnering with professionals and companies, we identify their unique needs and provide outcome-centric solutions to help them achieve their professional goals.

For more information, please visit our website:
https://www.simplilearn.com/quality-management/lean-six-sigma-black-belt-training

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