

Lean Six Sigma Black Belt (LSSBB™)

Lean Six Sigma Black Belt (LSSBB™) certification focuses on testing students on their comprehensive understanding of the various Six Sigma tools and techniques in conjunction with Lean.

Upon passing the exam, you will be accredited as "Lean Six Sigma Black Belt."

Syllabus

Introduction

1. A brief history of Quality
2. What is Quality (Definitions) and service or product
3. Quality Gurus & their contribution to Quality
4. Enterprise wide View
5. Leadership
6. Six Sigma Roles and Responsibilities
7. Team Formation
8. Team Facilitation
9. Team Dynamics
10. Time Management For Teams
11. Team Decision making Tools
12. Management and Planning Tools
13. Team Performance Evaluation And Rewards
14. Overview of DMAIC

Define

1. Important Stakeholders
2. Impact On Stakeholders
3. Critical To Requirements
4. Benchmarking
5. Business performance measures
6. Financial measures
7. VOC
8. Kano's Customer Satisfaction Levels
9. Juran's Customer Needs
10. Market Research
11. CTQ Flowdown
12. QFD
13. Performance Metrics
14. Project Charter
15. Charter Negotiation
16. Project management plan and Baselines
17. Project Tracking

Measure

1. Processes, Process characteristics, process flow metrics, inputs and outputs
2. Process maps and Flow chart
3. SIPOC
4. Data Type & Measurement scale
5. Data Collection
6. Sampling strategies

7. Fishbone Diagram
8. Relational Matrices or Prioritization Matrix
9. Basic Statistics
10. Analytical Statistics
11. Gauge R & R
12. Process Capability Analysis

Analyze

1. Correlation and Regression Analysis
2. Testing of Hypothesis
3. FMEA
4. Gap Analysis
5. The Five Whys
6. Pareto Diagram
7. Tree Diagram
8. Non-value-added activities
9. Cost of poor Quality (COPQ)

Improve

1. DOE
2. Poka-yoke
3. 5S
4. Kanban
5. Standard Operations
6. Operator work instructions
7. Cycle time reduction
8. Continuous Flow Manufacturing
9. SMED
10. Kaizen and Kaizen Blitz
11. Theory of Constraints (TOC)
12. Risk analysis

Control

1. Statistical Process Control
2. Other Control Tools
3. Maintain Controls
4. Sustaining Improvements

DFSS

1. DFSS

More on Lean

1. A Value Stream Map
2. Lean is Speed
3. Total Supply Chain
4. Lean Six Sigma Logistics

Case Study 1

1. Case Study 1 Part 1
2. Case Study 1 Part 2

Case Study 2

1. Case Study 2 Part 1
2. Case Study 2 Part 2

Exam Format

- Multiple Choice
- 125 questions per exam
- One mark awarded for every right answer
- No negative marks for wrong answers
- Duration of 180 minutes
- Online proctored exam

Prerequisites

Six Sigma Green Belt (SSGB™) certified professional.

Maintaining Certification

Take LSSBB™ Recertification exam every 3 years or earn any 6sigmastudy™ Certification.

Audience Profile

This certification is highly recommended for professionals who want to develop comprehensive understanding of practical implementation of Six Sigma methodologies in conjunction with Lean. This will involve the use of various Six Sigma and Lean tools and techniques to continuously improve processes and products.