









# 6σ Six Sigma Black Belt (SSBB)

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## Overview

Six Sigma Black Belt (SSBB) certification focuses on testing students on their comprehensive understanding of the various Six Sigma tools and techniques. The objective of the online value added course (complementary with certification exam) is to develop a comprehensive knowledge base that helps students to function effectively as a Six Sigma Black Belt in various projects. The tools and techniques cover both quantitative and non-quantitative analysis along with other necessary knowledge to improve the

production process and minimize defects in the end product with a greater focus on the practical implementation of these tool and techniques in the organization.

This course focuses on enabling the student not only to be able to relate Six Sigma concepts to the overall business mission and objectives but also be able to define, present and manage six sigma projects.



## Certification

Applicants will be awarded the Six Sigma Black Belt (SSBB) certificate by 6Sigmastudy upon successfully passing the certification exam, which is a 3 hour online multiple choice exam. Exams are administered by 6Sigmastudy and Need to schedule the exam in advance using the membership account or taken at a time convenient to you. The cost of exam is included in the course fee (2 free re-takes included)



## Who should attend?

- Project Managers
- Software Professionals,
- Business Analysts
- Business Managers



## Prerequisite

There is no formal prerequisite for this certification. However, it is recommended that the students undertake the FREE Six Sigma Yellow Belt (SSYB) Course to better understand the concepts required to be certified in Six Sigma Green Belt (SSGB) certification exam.



## Expected Learning Outcomes

- Gain comprehensive knowledge about the tool and techniques, advantages, and challenges of the Six Sigma methodology.
- Apply DMAIC (Define, Measure, Analyze, Improve, and Control) and various six sigma tools in process and quality improvement.
- Communicate using Six Sigma concepts.
- Assess and manage project risk.
- Avoid pitfalls in implementing six sigma.
- Be armed with the proper tools to address, resolve, and take the lead on production issues in their organizations.



## Syllabus

### Introduction to Six Sigma

- A brief history of Quality
- What is Quality (Definitions) and service or product
- Quality Gurus & their contribution to Quality
- Enterprise wide View
- Leadership
- Six Sigma Roles and Responsibilities
- Team Formation
- Team Facilitation
- Team Dynamics
- Time Management For Teams
- Team Decision making Tools
- Management and Planning Tools
- Team Performance Evaluation And Rewards
- Overview of DMAIC

### Six Sigma Methodology – Define

- Important Stakeholders
- Impact On Stakeholders
- Critical To Requirements
- Benchmarking
- Business performance measures
- Financial measures
- VOC
- Kano's Customer Satisfaction Levels
- Juran's Customer Needs
- Market Research
- CTQ Flowdown
- QFD
- Performance Metrics
- Project Charter
- Charter Negotiation
- Project management plan and Baselines
- Project Tracking

### Six Sigma Methodology – Measure

- Processes, Process characteristics, process flow metrics, inputs and outputs
- Process maps and Flow chart
- SIPOC
- Data Type & Measurement scale
- Data Collection
- Sampling strategies
- Fishbone Diagram
- Relational Matrices or Prioritization Matrix
- Basic Statistics

- Analytical Statistics
- Gauge R & R
- Process Capability Analysis

### Six Sigma Methodology – Analyze

- Correlation and Regression Analysis
- Testing of Hypothesis
- FMEA
- Gap Analysis
- The Five Whys
- Pareto Diagram
- Tree Diagram
- Non value added activities
- Cost of poor Quality (COPQ)

### Six Sigma Methodology – Improve

- DOE
- Poka-yoke
- 5S
- SMED
- Continuous Flow Manufacturing
- Kaizen
- Kanban
- Theory of constraints
- Risk analysis

### Six Sigma Methodology – Control

- Statistical Process Control
- Other Control Tools
- Maintain Controls
- Sustaining Improvements

### DFSS

#### Case Study 1

- Part 1
- Part 2

#### Case Study 2

- Part 1
- Part 2

# About SwissKnowledge

SwissKnowledge is a brand of Swiss Expert Consulting GmbH, designed to deliver training and consulting services to individuals and corporate customers

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## People Development

### COURSES PORTFOLIO

#### SCRUM & AGILE

- Scrum Developer Certified (SDC)
- Scrum Master Certified (SMC)
- Scrum Product Owner Certified (SPOC)
- Agile Master Certified (SAMC)
- Agile Scrum Master (ASM)

#### PROJECT MANAGEMENT

- Project Management Professional
- PMI Risk Management Professional
- PRINCE2 Foundation & Practitioner
- MSP Foundation & Practitioner
- CBAP

#### QUALITY MANAGEMENT

- Six Sigma Green Belt (SSGB)
- Six Sigma Black Belt (SSBB)
- Lean Six Sigma Green Belt (LSSGB)
- Lean Six Sigma Black Belt (LSSBB)

#### IT SERVICE MANAGEMENT

- ITIL Foundation
- ITIL 4 Foundation

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