



American Association of Six Sigma Quality and Lean Management Corporation

CERTIFIED SIX SIGMA GREEN BELT (CSSGB)

Get Evaluated and Certified the ability to apply the of core Lean and Six Sigma concepts, principles, and tools.



About AASSQLMC

American Association of Six Sigma Quality and Lean Management Corporation (AASSQLMC) is a global certification body dedicated to excellence in Lean, Six Sigma, and Quality Management.

It recognizes professionals with advanced skills in process improvement, data analytics, and operational efficiency.

AASSQLMC certifications validate international competence and credibility, empowering professionals to lead sustainable improvement initiatives.



We offer globally recognized certifications for Yellow Belt, Green Belt, Lean Management, Black Belt, and Master Black Belt professionals.

Certification Details

Certification Overview

Certification Title: AASSQLMC Certified Six Sigma Green Belt (CSSGB)

Purpose: The AASSQLMC Certified Six Sigma Green Belt (CSSGB) validates proficiency in Lean Six Sigma principles, data analysis, and process improvement. It showcases a professional's ability to identify inefficiencies, analyze root causes, and drive quality and performance enhancements.

Who Should Apply: Ideal for professionals in quality, operations, or project management seeking to lead process improvement efforts or support Black Belts in larger initiatives.

Recognition: Internationally recognized as a mark of expertise in process optimization, analytical thinking, and continuous improvement.



Certification Objectives

The AASSQLMC Certified Six Sigma Green Belt (CSSGB) exam assesses a candidate's knowledge and application of Lean Six Sigma principles, DMAIC methodology, and data-driven problem-solving.

It evaluates skills in process improvement, waste reduction, variation control, and project management to ensure readiness for leading and supporting continuous improvement initiatives.

Eligibility Criteria

The AASSQLMC Certified Six Sigma Green Belt (CSSGB) examination is open to graduates and professionals from all disciplines who seek to enhance process improvement and quality management skills. Prior experience in Lean or Six Sigma is beneficial but not mandatory. Individuals with an interest in data-driven problem-solving, efficiency improvement, and quality enhancement—across industries such as manufacturing, services, healthcare, IT, and business operations—are encouraged to apply.

GREEN BELT

Examination Information

Examination Structure

Mode: Online

Format: Multiple Choice Questions (MCQs) + Application-Based Scenarios

Duration: 120 Minutes

Number of Questions: 100

Passing Score: 70% and above

Open Book: Yes

Retake Policy: Candidates may retake the exam after 15 days, with up to three free attempts within 1 year.



Certification Process

The AASSQLMC Certified Six Sigma Green Belt (CSSGB) certification follows a structured and transparent process designed to ensure fairness, credibility, and global recognition.

Step 1: Application & Fee Payment - Submit your application form and complete the certification fee payment through the AASSQLMC portal.

Step 2: Exam Access - Receive your examination login credentials and instructions for the online assessment through an email.

Step 3: Examination - Appear for the online, proctored examination consisting of MCQs and a

case analysis.

Step 4: Evaluation - The responses are evaluated based on accuracy, analytical application, and problem-solving capability.

Step 5: Certification Issue - Successful candidates are awarded the AASSQLMC Certified Six Sigma Green Belt (CSSGB) certificate.

Step 6: Digital Credential & Verification - Certified professionals receive a digital credential, verifiable through the AASSQLMC Certification Verification Tool (Visit: [certification-verification-tool](#)).

Professional Competencies

Key Competencies Gained

- ❖ Data Analysis and Problem-Solving using Lean Six Sigma tools.
- ❖ Understanding and Applying the DMAIC Framework.
- ❖ Process Mapping, Root Cause Analysis, and Waste Reduction.
- ❖ Basic Statistical Analysis for process improvement.
- ❖ Team Collaboration and Project Execution within improvement initiatives.
- ❖ Implementing Quality and Efficiency Enhancements in operations.



Recognition & Verification

- ❖ The AASSQLMC Certified Six Sigma Green Belt (CSSGB) is globally recognized across industries for Lean Six Sigma proficiency.
- ❖ Certified professionals are listed in the AASSQLMC Global Registry of credentialed practitioners.
- ❖ Credentials can be verified anytime through the AASSQLMC Certificate Verification Tool at [certification-verification-tool](#).

Validity & Renewal

- ❖ The AASSQLMC Certified Six Sigma Green Belt (CSSGB) certification is valid for a lifetime.
- ❖ Certified professionals are encouraged to stay updated with the latest advancements in Lean Six Sigma practices.
- ❖ Certification can be renewed or upgraded through the latest AASSQLMC Body of Knowledge (BoK) examination to reflect continued professional growth.

Syllabus

I. Overview: Six Sigma and the Organization

A. Six Sigma and Organizational Goals

Understand the value of Six Sigma by studying its origin, philosophy, and significance in achieving business excellence through customer satisfaction and financial impact (Remember, Understand). Analyze how Six Sigma aligns with organizational goals, drives operational excellence, and creates competitive advantage through improved profitability, productivity, and customer loyalty (Analyze, Evaluate). Under organizational drivers and metrics, apply the concepts of business metrics such as ROI, DPMO, COPQ, and Sigma Level, and link them to strategic business objectives (Apply, Analyze). Evaluate how Six Sigma projects support organizational vision and mission through effective goal deployment and governance (Evaluate, Create).

B. Lean Principles in the Organization

Understand Lean thinking principles, the concept of value, and the elimination of wastes (Muda, Mura, Muri). Apply Lean tools such as 6S, Value Stream Mapping (VSM), Kaizen, and visual management to identify process inefficiencies (Apply). Analyze processes to differentiate between value-added and non-value-added activities, quantifying process waste and optimizing cycle times (Analyze). Understand and apply the theory of constraints and the five focusing steps, bottleneck identification, and takt time calculation to improve throughput and flow (Understand, Apply, Analyze).



C. Design for Six Sigma (DFSS) in the Organization

Understand the DFSS philosophy and its integration into design and innovation (Understand). Apply tools such as Quality Function Deployment (QFD) to translate customer needs into engineering requirements and analyze Design and Process FMEA to identify and mitigate potential failure modes (Apply, Analyze). Finally, evaluate and create DFSS roadmaps such as DMADV or IDOV, understanding each stage from concept definition to validation (Evaluate, Create).

II. Six Sigma – Define

A. Process Management for Projects

Understand process elements—inputs, outputs, suppliers, and customers—and apply SIPOC mapping (Understand, Apply). Analyze process ownership, stakeholder influence, and customer identification techniques to prioritize key requirements (Analyze). Apply and evaluate customer data collection and analysis tools such as surveys, interviews, and Kano models to translate VOC into CTQs (Apply, Evaluate).

B. Project Management Basics

Create effective project charters with clear problem statements, goals, and business cases (Create). Apply project management concepts like scope definition, risk assessment, and planning tools (Gantt charts, RACI, PERT/CPM) (Apply, Analyze). Understand project documentation and closure procedures to ensure sustainability and governance (Understand, Evaluate).

C. Management and Planning Tools

Understand and apply both traditional and new 7 QC tools—such as Check Sheets, Pareto Charts, Fishbone Diagrams, Affinity Diagrams, Tree Diagrams, and Matrix Analysis—to structure, organize, and analyze qualitative and quantitative data (Understand, Apply, Analyze).

D. Business Results for Projects

Analyze process performance metrics (yield, DPU, DPMO, RTY) and apply FMEA to identify potential process risks, prioritize actions, and mitigate failures (Apply, Analyze, Evaluate).

E. Team Dynamics and Performance

Understand team development stages (Forming, Storming, Norming, Performing, Adjourning) and apply leadership and communication tools to ensure collaboration (Understand, Apply). Analyze roles such as Sponsor, Champion, MBB, BB, and GB, and evaluate team effectiveness using tools like RACI, brainstorming, and conflict resolution (Analyze, Evaluate).



III. Six Sigma – Measure

A. Process Analysis and Documentation

Understand and apply process mapping at different levels (Block, Operational, and Process Level) and create VSMs to visualize flow and waste (Understand, Apply, Analyze).

B. Probability and Statistics

Understand probability concepts, sampling distributions, and the Central Limit Theorem (Remember, Understand). Apply statistical reasoning to draw valid conclusions from process data (Apply, Analyze).

C. Collecting and Summarizing Data

Understand and apply data classification (continuous, discrete, nominal, ordinal) and design effective data collection plans ensuring accuracy and integrity (Understand, Apply). Analyze data using descriptive statistics—mean, median, mode, variance—and interpret graphical methods such as histograms, box plots, and scatter diagrams (Analyze, Evaluate).

D. Probability Distributions

Understand and apply normal, binomial, and Poisson distributions in real-world process analysis (Understand, Apply).

E. Measurement System Analysis

Analyze and evaluate measurement systems using Gauge R&R, bias, linearity, stability, and discrimination studies to ensure data reliability (Analyze, Evaluate).

F. Process Capability and Performance

Apply process capability studies (C_p , C_{pk} , P_p , P_{pk}) and analyze short-term vs. long-term variability (Apply, Analyze). Evaluate performance indices for variables and attribute data to assess process stability and capability (Evaluate, Create).

IV. Six Sigma – Analyze

A. Exploratory Data Analysis

Apply multivariate analysis to identify sources of variation and analyze relationships through correlation and regression (Apply, Analyze, Evaluate).



B. Hypothesis Testing

Understand and apply hypothesis testing concepts, selecting appropriate tests for means, proportions, and variances (t-test, z-test, chi-square, ANOVA) (Understand, Apply). Analyze and evaluate statistical significance, p-values, and confidence intervals to validate process changes (Analyze, Evaluate).

C. Root Cause and Risk Analysis

Apply and analyze problem-solving tools like 5-Why Analysis, Fault Tree Analysis, Bottleneck Analysis, and FMEA to isolate and address root causes (Apply, Analyze, Evaluate).

V. Six Sigma – Improve & Control

A. Design of Experiments (DOE)

Understand experimental design terms (factors, levels, response, randomization, replication) and apply factorial experiments to identify significant factors and interactions (Understand, Apply, Analyze). Evaluate results using main effects and interaction plots to optimize processes (Evaluate, Create).

B. Lean Tools for Improvement

Apply techniques such as Total Productive Maintenance (TPM), Visual Control, Andon, and Poka-Yoke to prevent defects and sustain improvements (Apply, Analyze).

C. Statistical Process Control (SPC)

Understand and apply control chart concepts, subgrouping, and chart selection (\bar{X} -R, p, np, c, u charts) (Understand, Apply). Analyze and evaluate chart patterns to differentiate between common and special causes of variation (Analyze, Evaluate).

D. Implement and Validate Solutions

Create and apply implementation plans, pilot solutions, and validation approaches to confirm improvement sustainability (Apply, Create).

E. Control Plan

Evaluate and create comprehensive control plans defining monitoring methods, response actions, and documentation requirements to sustain process gains (Evaluate, Create).





Contact

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