



Crystal Lean Solutions

Training
Academy

ASQ Lean Six Sigma Black Belt



ASQ Lean Six Sigma Black Belt

DURATION: 20 Classroom Days or 14 online Days

ACCREDITATION: American Society for Quality (ASQ)

COURSE CODE: 1056

AIM:

The ASQ Six Sigma Black Belt programme provides participants with the advanced knowledge and skills necessary to lead and mentor Six Sigma improvement projects within an organization. This programme emphasizes statistical tools, data-driven methodologies, and lean principles to achieve significant quality and process improvements. Graduates will be equipped to handle complex projects, drive organizational change, and create sustainable operational efficiencies

OBJECTIVES:

At the end of the course, learners will be able to:

- ✿ Master the Six Sigma DMAIC methodology for process improvement.
- ✿ Collect, analyse, and interpret data using advanced statistical tools.
- ✿ Apply Design of Experiments (DOE) to optimize processes and solutions.
- ✿ Lead and mentor project teams effectively, utilizing change management principles.
- ✿ Integrate Lean and Six Sigma tools to drive waste reduction and improve process flow.
- ✿ Develop control strategies to ensure sustained improvements.
- ✿ Master Lean leadership skills to manage change effectively

THIS PROGRAMME IS FOR:

Candidates that wish to lead Lean-Six Sigma in the organisation

PROGRAMME CONTENT:

Week 1: Foundation and Define Phase

- ✿ Introduction to Six Sigma and Lean Principles
- ✿ Project Selection and Scope Definition
- ✿ Defining Customer Requirements (Voice of the Customer, CTQ)
- ✿ Project Charter and SIPOC Analysis
- ✿ Team Dynamics and Managing Stakeholders
- ✿ ASQ Exam preparation

Week 2: Measure and Analyse Phase

- ✿ Process Mapping and Value Stream Mapping
- ✿ Data Collection Planning and Sampling Techniques
- ✿ Measurement System Analysis (MSA) and Process Capability (Cp, Cpk)
- ✿ Hypothesis Testing and Statistical Analysis (t-tests, ANOVA)
- ✿ Root Cause Analysis (Fishbone Diagram, 5 Whys, FMEA)
- ✿ ASQ Exam preparation

Week 3: Improve and Control Phase

- ✿ Design of Experiments (DOE) and Factorial Analysis
- ✿ Lean Tools and Techniques (5S, SMED, Kaizen)
- ✿ Solution Selection and Pilot Testing
- ✿ Control Charts and Statistical Process Control (SPC)
- ✿ Control Plan Development and Project Close-out
- ✿ ASQ Exam preparation

Week 4: Leadership Capability

- ✿ Change Management and Team Dynamics
- ✿ Situational Leadership
- ✿ Constructive conversations
- ✿ Emotional intelligence

ASSESSMENT:

Computer Delivered - The CSSBB examination is a one-part, 165-question exam and is offered in English only. 150 questions are scored and 15 are unscored. Total appointment time is four-and-a-half hours, exam time is 4 hours and 18 minutes.

For comprehensive exam information on Six Sigma Black Belt certification, visit asq.org/cert.

The ASQ Certified Six Sigma Black Belt Must achieve greater than 73.3%

GRADING:**PROGRAMME DELIVERY:**

Classroom or online

TOTAL DURATION OF THE PROGRAMME INCLUDES:

20 Classroom Days or 14 online days

CERTIFICATION CRITERIA:

Details for certification can be found at

[ASQ Black Belt Certification Criteria](#)

CERTIFICATION BODY:

ASQ (ASQ examination is not included in the programme).

RECOGNITION OF PRIOR LEARNING (RPL):

N/A

PRE-REQUISITE:

3 Years of on-the-job experience in one or more of the areas of the CSSBB Body of Knowledge & one completed project with signed affidavit, or two completed projects with signed affidavits.

OTHER COURSES OF INTEREST FROM THE CLS TRAINING ACADEMY:



- ✿ A3 Problem Solving
- ✿ Human Error Problem Solving
- ✿ Professional Diploma in Leadership
- ✿ Situational Leadership
- ✿ Professional Coaching
- ✿ Effective Presentation Skills
- ✿ Team Dynamics