On-line

Six Sigma Black Belt Training and Certification Program

(Evening Session)

(Batch -32)

During

July 06 - 11, 2026 (Phase-I) - 6 days
July 27 – Aug 01, 2026 (Phase-II) - 6 days
August 17 – 22, 2026 (Phase-III) - 6 days
August 31-Sept 05, 2026 (Phase-IV) - 6 days

Total duration: 24 days

Everyday class timing : 6:00 pm.- 7:30 p.m. & 8:00 p.m.- 9:30 p.m. (3 hrs.)

Final Examination (MCQ type): 27 September 2026 (Sunday), during 7:00 p.m. – 8:30 p.m. (IST)

Last date of registration: 30 June 2026 (Tuesday)

Conducted by

SQC & OR Unit, Mumbai
Indian Statistical Institute
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www.isimum.ac.in
Mobile: 9969928144 / 9869242240

Benefits of attending this program:

This training program aims to equip participants with comprehensive knowledge of Six Sigma methodology, enabling them to:

- **Identify quality-related issues** in manufacturing and service processes within their organizations.
- **Establish clear linkages** between quality problems and the associated processes, products (or services), and people.
- **Recognize Critical-to-Quality (CTQ) characteristics** that impact customer satisfaction and business performance.
- **Apply the DMAIC (Define–Measure–Analyze–Improve–Control) methodology** effectively for real-world process improvement initiatives.
- **Conduct graphical and statistical analyses** to derive actionable insights from process data.
- **Interpret key statistical metrics and measures** to understand process behavior and performance.
- **Utilize statistical tools and software** such as RStudio, Minitab, and Microsoft Excel for efficient data analysis.
- **Gain awareness of commercial software tools** commonly used in Six Sigma implementations and how they enhance analysis and decision-making.
- **Identify and lead impactful process improvement projects** that contribute significantly to the organization's bottom line.

Program Delivery: Six Sigma Black Belt (BB) Training and Certification

The SQC & OR Unit, Mumbai is pleased to offer this online classroom-style Six Sigma Black Belt (BB) training and certification program through a virtual platform.

Program Highlights:

- All training sessions and the final examination will be conducted entirely online.
- Training material (PDF format) and datasets for class exercises will be shared via a virtual drive.
- Participants are expected to download the materials and datasets before attending the sessions.

Tools for Data Analysis:

- The training will primarily involve hands-on data analysis using:
  - RStudio
  - Minitab
  - Microsoft Excel

Software Requirements:

- Participants may:
  - Purchase a Minitab license, or
  - Download the free 15-day trial version.
- Those opting for the trial version of Minitab are requested to install it during the session, as guided by the instructor**.**

About the Online Sessions:

The training program will be conducted via **Microsoft Teams** as the online platform.

Platform Access Requirements:

- Participants must register on Microsoft Teams using the same email ID provided in their nomination form.
- To sign up or download Microsoft Teams, please visit: https://www.microsoft.com/en-in/microsoft-365/microsoft-teams/group-chat-software

Getting Started with Microsoft Teams:

Participants unfamiliar with Microsoft Teams are encouraged to watch the following tutorial videos for guidance on creating an account and joining a session:

https://www.youtube.com/watch?v=oq_6-TJkGBA
https://www.youtube.com/watch?v=BH6bSIwR0-4

Target Participants:

Heads of Strategic business units, Managers/ Executives from various functions with a minimum of six months specialized training in the area of Quality Management of certified Six Sigma Green Belts, can attend the current Six Sigma Certification Program.

Faculties:

Experienced faculties from Indian Statistical Institute, having in-depth experience in implementing six sigma in various leading manufacturing and service organizations across the globe, will be associated with the training sessions.

Program Phases:

- **Phase I**: July 06 – 11, 2026 (6 days)
- **Phase II**: July 27 – Aug 01, 2026 (6 days)
- **Phase III**: Aug 17 – 22, 2026 (6 days)
- **Phase IV**: Aug 31 – Sept 05, 2026 (6 days)

Session Schedule (IST):

- **06:00 PM – 07:30 PM | Session 1**
- **07:30 PM – 08:00 PM | Break**
- **08:00 PM – 09:30 PM | Session 2**

Examination Details:

- Date: September 27, 2026 (Sunday)
- Time: 7:00 PM – 8:30 PM (IST)
- Format: Online Examination (1.5 hours)
- Type: Multiple-Choice Questions (MCQs)
- Passing Criteria: Minimum 60% required to pass

In addition to the MCQ test, all participants are **required to submit assignments** that will be provided during the sessions. Both components are **mandatory** for successful completion of the program.

Six Sigma Black Belt Certification Criteria

To be eligible for the Six Sigma Black Belt certification, participants must fulfill all of the following requirements:

1. Attend all training sessions
2. Score a minimum of 60% in the MCQ-based Qualifying Examination
3. Submit all assigned coursework and assignments
4. Complete one real-time project applying the Six Sigma methodology*

*The project should demonstrate practical application of Six Sigma tools and techniques to solve a real-world problem.

Note: *Participants are required to undertake the project within their parent organization (current workplace). A PowerPoint presentation (PPT) of the completed project must be submitted within six months from the last date of training.*

Registration:

Registrations are purely on a '**first come, first allotted'** basis. *Admissions may close early if all seats are filled.* **For any clarification or enquiry, participants may call 9969928144 / 9869242240.**

Participants are required to pay the course fee **before registration**. After making the payment, please complete the online registration through the **"Register Now"** option available on the home page of our website: **www.isimum.ac.in**

After completing the registration, participants must send an email to ***sqcbombay@gmail.com*** mentioning their **name**, **current postal address** (for sending the course material), and **payment details**.

Course fee:

Rs. 50000 + 18 % Tax as per Govt. Rules. Total fees: **Rs.59000 /-** per participant. Fees to be paid ***through on-line bank transfer only***. The bank details for on-line payment are given below:

Bank Name:	STATE BANK OF INDIA
Account Name:	Indian Statistical Institute,
Account Type:	**Current**
Bank Account No:	10996682279
Branch:	MUMBAI MAIN BRANCH
Bank Address:	Mumbai Samachar Marg, Horniman Circle, Fort. Mumbai 400023
IFSC code:	SBIN0000300

Note: Fee once paid will be fully refunded if ISI cancels the program only.

LAST DATE FOR REGISTRATION: June 30, 2026

Body of Knowledge: Six Sigma Black Belt Course

1. Overview of Six Sigma Methodology and roles and responsibilities in Six Sigma implementation
2. Identification, Prioritization and selection of Improvement opportunities
3. Over view of Six Sigma Project execution (DMAIC Define- Measure- Analyze- Improve & Control), and Gate Review Questionnaire
4. Development of Project Team and Charter
5. Define and Map Processes to be improved (SIPOC (supplier, input, process, output, customer) / COPIS (customer, output, process, input, supplier), Activity Flow Chart)
6. Identification of critical to customer / critical to business characteristics: Voice of Customer
7. Descriptive Statistics and Statistical distributions Binomial, Poisson ,Normal and other continuous distributions
8. Prioritisation Matrix and FMEA and use of it in Data Collection Planning
9. Introduction to various statistical software packages for data display & analysis like Excel, Minitab, Systat, JMP, crystal ball, etc.- understanding in usage & interpretation of output along with each topic
10. Measurement System Evaluation (Gauge R&R) for variables as well as for attribute measurements (Kappa Value and Confidence interval for agreement with expert)
11. Understanding variation-special causes vs. common causes (Application of Graphical techniques)
12. Stratification methods (like Pareto, Bar Diagrams, stratified dot plot, stratified scatter plot, Box Plot, Multi -Vari Charts etc)
13. Normality test of a data, evaluation of Process Capability for data from a Normal/Non-Normal distribution
14. Evaluation of Process Capability for Data from Normal/Non-Normal Distribution
15. Concept of Short Term, Long Term Process Capability and assessment of Sigma level
16. Cross Functional Process Mapping including identification of value added and non value added activities
17. Organizing for potential causes using cause and effect diagram, FMEA & Tree Diagram
18. Concept of correlation and Regression and use of the same in validating causes
19. Concept of Test of Hypothesis like 2 Sample t, χ^2 , ANOVA etc and use of the same in validating the causes
20. Sample Size determination for a given confidence level
21. Multiple Regression, logistic regression and use of the same in validating the causes
22. Concept of Design of experiment and details of full factorial, fractional factorial and screening designs
23. Generate Improvement Ideas using Creativity Techniques (Traditional & non traditional)
24. Solution Evaluation Criteria, Evaluation of solutions and selection of solutions
25. Change Management Process dealing with resistance to change and Process of piloting the solutions
26. Risk Analysis through use of FMEA or related methodologies
27. Concept and Examples of Poke Yoke, Visual Workplace and 5S
28. Evaluation of results after implementation and monitoring the results through statistical Process Control (like Control Charts, Pre-Control Charts etc)
29. Monitoring the results as a part of established QMS through use of process, product audit and internal audits
30. Institutionalization and integration of the solutions
31. Work through at least 3 six sigma projects of different applications