

CERTIFIED SIX SIGMA BLACK BELT



Objectives

Participants will learn how to apply statistical methods for business process improvement, including how to:

- Communicate the benefits of Six Sigma as a business strategy across the organisation
- Align with management in the deployment of Six Sigma
- Build a successful infrastructure for Six Sigma deployment
- Integrate Six Sigma with other improvement methods
- Select successful Six Sigma projects and project teams
- Significantly increase profitability through Six Sigma projects

Duration

3 weekdays (Monday, Wednesday, Friday) | 7pm – 10pm | 4 months | 107 hours

Who should attend

Quality and / or Training Coordinators;

Engineers, Business Unit Managers, Program Managers and other practitioners / change agents who will be conducting Six Sigma projects;
Individuals interested in having certification for Black Belts.

Entry Requirement

Diploma or Degree holders with relevant working experience;

and possess Project Management Skills; Analytical Skills.

Participants must have at least one potential project for execution;

and possess Basic Skills in MS Excel and Power-Point applications.

Course Fees

Member: S\$4,752.00

Non-Member: S\$5,702.83

Registration Fee of S\$17.28 and Exam & Certification Fees of S\$216 apply

All fees stated are inclusive of 8% GST

Assessment Method

Written examination - held approximately 4 weeks from end of course

Project assessment - within 2 years from commencement date of study



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Course Contents

Enterprise Deployment

- Enterprise View, Leadership
- Organisational Goals & Objectives, History of Organisational Improvement

Business Process Management

- Process vs Functional View
- Voice of Customer, Business Results
- Process Performance Metrics, Benchmarking, Financial Benefits

Project Management

- Project Charter and Plan, Team Leadership
- Team Dynamics and Performance, Change Agents

Define

- Project Definition / Scope / Selection
- Metrics, Problem Statement

Measure

- Process Analysis & Documentation
- Minitab Software Application
- Probability & Statistics
- Collecting & Summarising Data using Minitab
- Properties & Applications of Probability Distributions
- Measurement Systems Analysis
- Analysing Process Capability

Analyse

- Hypothesis Testing
- ANOVA
- Non-Parametric Test
- Multivari Chart
- Simple Linear Regression
- Multiple Regression

Improve

- Full Factorial Design of Experiment (DOE)
- Fractional Factorial Design of Experiment
- Response Surface Methodology (RSM)
- Evolutionary Operation (EVOP)

Control

- Statistical Process Control
- Advanced Statistical Process Control
- Lean Tools for Control / Measurement System Re-Analysis

Lean Enterprise

- Lean Concepts
- Lean Tools
- Total Productive Maintenance

Design for Six Sigma

- Introduction, Quality Function Deployment
- Robust Design & Process, Failure Mode & Effects Analysis
- Design for X, Special Design Tool

Project Briefing

- Project Briefing

Special Note:

Participants need to bring their own laptops for Minitab Software Application training



Please refer to this URL
<https://www.sqi.org.sg/courses/>
or QR Code for soft copy
and updated training schedule

Membership Application

Register membership online at www.sqi.org.sg/membership-join/ or contact us to get the membership application form.

Membership Categories:

- ~ Organisation membership
- ~ Individual membership

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