# **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

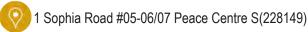
**Assessment Method** 

Written examination - held approximately 4 weeks from end of course Project assessment - within 2 years from commencement date of study









# **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

#### **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

# **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

# **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

Singapore Quality Institute (SQI) operates as a non-profit professional institute that promotes and advances excellence in the field of quality in Singapore; and actively champions quality initiatives in the region and around the world through networking and collaborating with other international quality organisations.

SQI is a World Partner of the American Society for Quality (ASQ); and a Board Member of both the Asian Network for Quality (ANQ) and the World Alliance for Chinese Quality (WACQ).









APPROVED TRAINING PARTNER



