

# ***Lean Six Sigma Black Belt Certification Programme***

---

**Indispensable techniques for business and career grow**

**業務和職業發展不可缺少的技術**

---



## Six Sigma Institute (SSI)

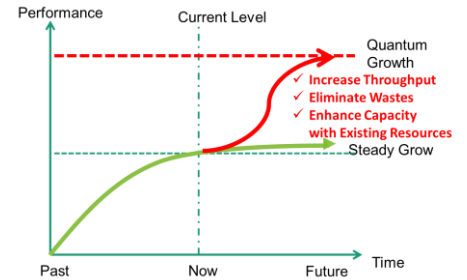
As a non-profit professional organization, the main goal of the Six Sigma Institute (SSI) is to accredit Six Sigma professionals with recognized knowledge and skills in this applied science. SSI works closely with universities and professional bodies to promote the theory and application of Six Sigma, Lean and Theory of Constraints and associated methodologies. SSI develops and launch latest and innovative training programmes aimed at enhancing the competitiveness of practitioners and their organizations.

## Lean Six Sigma Programme

Six Sigma methodology since developed by Motorola in 1986 has continuously evolved from quality improvement in 80's and cost reduction in 90's to now focus on revenue generation. To make this application science to match with rapid change of business requirements, Six Sigma has integrated the essence of Lean and Theory of constraints.

LEAN methodology is a process improvement methodology that originated in the manufacturing industry but has since been widely adopted across various industries. The goal of LEAN is to eliminate waste and improve efficiency by focusing on adding value to the customer while minimizing non-value activities. LEAN methodology aims to create a culture of continuous improvement by empowering employees to identify areas of waste and inefficiency in their work processes and implement solutions to eliminate them.

This integrated approach can help organizations achieve a leap in business growth. The Lean Six Sigma Black Belt is an effective driving force for the company to achieve this goal



## Course Overview

**Lean Six Sigma Black Belts** are the core of Lean Six Sigma Scheme in Six Sigma organizations. These individuals will continually work towards institutionalising the effective use of these tools throughout the corporation, its customers, and its suppliers. They also bear the responsibility of leading and driving projects with high business impact. This course will enable the participant to grasp the essential skills to **lead Lean Six Sigma projects** in their organisations. Through the coaching and in-class exercises, the participant receives **practical experience** from Six Sigma practitioners who hold the participants hand-in-hand to **identify and implement the projects in the participants' organizations**.

## Who should attend?

1. Quality, R&D, process engineers or supervisors.
2. Graduates of Six Sigma Green Belt programme
3. Executives responsible for business growth.
4. Managers who wants to enhance their analytical skills

## Why SSI programme?

<b>Award-Wining Institute</b>	As a renowned professional organization, SSI has accumulated 18 years of training experience, providing and sharing knowledge and experience for more than 5,000 participants
<b>Result-Orientated</b>	Aims to develop participants' talents by sharing our rich consultancy experience with latest solutions for business growth.
<b>Flexible Schedule</b>	Provide weekday and weekend courses to let students budget their time between work and family life.
<b>Professional Network</b>	Automatically become a member of our Six Sigma community-a powerful platform for professional networking and experience sharing.
<b>Your partner for Growth</b>	Provides the most comprehensive theory and application of Six Sigma, Lean and Theory of Constraints

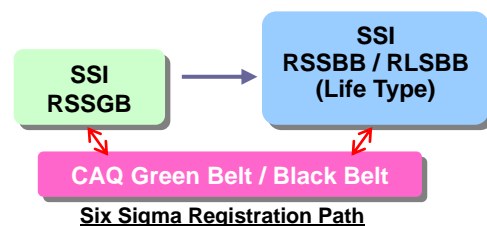


**Six Sigma Programme Study Path**

## Recognition

Certificate holders who have completed a Six Sigma project with verified savings of HK\$500,000 or an individual project in the SSI Six Sigma Project Simulation course are eligible to register with SSI as a Lean Sigma Black Belt and use the professional title RLSBB follows their name.

The SSI Black Belt certification has been mutually recognized by the China Association for Quality (CAQ). RLSSBB (Life Type) also meets the requirements of the China Association for Quality (CAQ) Black Belt certification, is eligible to apply for the CAQ's Certified Six Sigma Black Belt Certificate.



## Lean Six Sigma Black Belt Course Outline

<b>Introduction and Project Definition</b>	0.0 Course Introduction 1.1 The latest Development of Lean, Six Sigma and Theory of Constraints (TOCLSS) 1.2 A Case Example of Six Sigma Projects 1.3 Contribution of TOCLSS towards Industry 4.0 1.4 Identification of Six Sigma Projects 1.5 Project Charter 1.6 project schedule 1.7 High Level process Map – SIPOC 1.8 VOC, CCR and CTQ 1.9 In-class Project – Define phase	<b>Analysis – Process Analysis</b>	3.1 Overview of Analyze Phase 3.2 Process Analysis 3.3 Lean and Lean Transformation 3.4 Evaluate the current situation – VSM 3.5 Case Study- Manufacture 3.6 Case Study- Service 3.7 Identify Improvement Opportunities 3.8 Law of Variations 3.9 Theory of Constraints 3.10 Wastes Elimination 3.11 Modify the Existing Process -VSM 3.12 Case Study – Manufacture 3.13 Case Study - Service 3.14 Substantiate and enumerate improvements 3.15 Implement New Standard Work	<b>Process Improvement</b>	4.1 Overview of Improve Phase 4.2 Introduction to Design of Experiment 4.3 DOE – One Factor at a Time 4.4 DOE – Full Factorial Design 4.5 DOE Case study 4.6 DOE Exercise 4.7 Sample Size, Centerpoint and Blocking 4.8 In-class Project – Factorial Design 4.9 Response Surface Method 4.10 RSM Case Study 4.11 In-class Project RSM Design 4.10 Lack of Fit Issues 4.11 Case Study 4.12 Fractional Factorial Design 4.13 Case Studies 4.14 In-class Project - Improve Phase
	<b>Process Measurement</b>		2.0 Measure Phase Overview 2.1 Detail Process Map 2.2 In/Out Put Analysis 2.3 C&E Matrix 2.4 FMEA 2.5 Data Collection Plan 2.6 Measurement Systems Analysis 2.7 Attribute GR&R 2.8 Introduction to SigmaXL 2.9 Basic Statistics 2.10 Current Process Capability 2.11 PPM, DPMO and Sigma Level 2.12 In-class Project - Measure phase		<b>Analyze - Data Analysis</b>

## Professional Certificate

A **Professional Certificate in Six Sigma Black Belt** will be awarded to participants who met all requirements of the course (70% attendance, complete all assignments, a group project and pass the examination).

## Course Schedule (Please visit our website for details of schedules)

\*A Black Belt course could be enrolled with a Green Belt course as a Combined Course and the examination of Green Belt will be exempted.

## Course Fee **HK\$26,600 (includes exam fee)**

- 10% off early-bird discount for settled payment 4 weeks before course commencement date.
- 15% off discount for 3 or above enrolment from the same company.

## Enquiry

Tel: (852) 2581 2771

Email: [info@ssi.org.hk](mailto:info@ssi.org.hk)

Website: [www.ssi.org.hk](http://www.ssi.org.hk)