



Lean Six Sigma Master Black Belt

Program Brochure

Program Introduction

In its purest form, Lean Six Sigma is about leveraging the principles and tools of science to abate business risk – at all levels of an enterprise. With this in mind, we can view the practice of Lean Six Sigma (LSS) from four different altitudes. At its highest level, LSS is a strategic vision that epitomizes business success. Second, it is a tactical system of project management that optimizes the control function of a commercial or industrial enterprise.

Third, it's a scientific approach for minimizing or eliminating certain forms of business risk commonly associated with the operation of critical processes. Fourth, it is a personal way of thinking that unites the power of deductive reasoning with the benefits commonly associated with data-driven decision making.

Program Rationale

Today, more than ever before, organizations of all types are questing for top and bottom line improvement. This journey is no longer considered a side-bar activity; rather, it is now viewed as a critical business imperative. Of course, this means that business executives must find new and innovative ways to reduce their total cost structure, improve capability and increase capacity, but done so without capital investment. These executives also understand that, to achieve this mission, they must improve their core processes, yet done so in an economical, repeatable and verifiable way. Naturally, the realization of this grand vision requires individuals that have the capability to yield beneficial change in a relatively short period of time. When leaders of this calibre are enabled by the power of Lean Six Sigma, quantum business improvements are not only possible, but highly probable.

Program Description

The SSMI® Lean Six Sigma Master Black Belt Program is designed to help Black Belts develop and implement change initiatives and become a necessary member of an organization's leadership team and its competitive advantage. The programme is designed and developed based on the original teachings of Dr. Mikel J. Harry, co-founder of Six Sigma and national best-selling author.

Master Black Belts are highly trained practitioners who possess the technical knowledge and skills that are necessary to facilitate breakthrough improvements in key processes that support the overall business aims and operational goals of an enterprise. In summary, Master Black Belts are individual contributors or front line managers that:

- *Serve as change agents, internal consultants, mentor to Black Belts and assistant Six Sigma Champions.*
- *Optimize existing technology, or bring new technologies on line at optimal operating conditions.*
- *Practice the art and science of solving process-centric problems through the analysis of performance data.*
- *Implement technical and leadership capability to improve the performance of an existing industrial or commercial process, regardless of complexity or output volume.*
- *Solve specific process-oriented or design-centric problems that have a negative impact on customer satisfaction, operational capability, output capacity, cycle time and other performance-related metrics.*
- *Act as a catalyst for company digital transformation and proactively implement the customer excellence program.*



Target Audience

This program of study has been designed for experienced managers, executives and LSS Black Belts seeking vertical mobility or pursuing horizontal opportunities within their respective fields of practice.

Hence, the Master Black Belt training is designed for already certified Black Belts with minimum 2-3 years of post-qualifying experience. Successful completion of any professional qualification or a Master's degree is useful but not necessary to support the academic demands of this program.

Program Goals

Upon completion of this program of study, the candidate will be able to successfully:

- *Master the Six Sigma DMAIC methodology and large scale deployment strategies*
- *Apply the Lean Six Sigma knowledge and skills to successfully lead project teams*
- *Implement Project Selection Analysis and tools to accomplish Master Black Belt level projects.*
- *Utilize the principles and practices of Lean Six Sigma to better frame and solve complex problems.*
- *Improve business value for customers and providers in a concurrent and synergistic way.*
- *Design a multi-year strategic continuous improvement roadmap*

Program Focus

The Lean Six Sigma Master Black Belt program of study will focus on several key areas:

- ***Six Sigma principles, practices, deployment strategies and implementation tactics;***
- ***Lean principles, leadership and change management;***
- ***Descriptive statistics, benchmarking methods, process control techniques, process diagnostic methods and experimental design methods;***
- ***Types and uses of performance data, sample size determination and sampling schemes;***
- ***Project selection criteria, charter elements, execution milestones and review guidelines;***
- ***Principles and practices associated with process characterization and optimization;***



Who is the Six Sigma Management Institute

The Six Sigma Management Institute was founded by Dr. Mikel J. Harry, the co-creator of the Six Sigma methodology. For over 20 years, we have coached hundreds of companies and trained thousands of individuals both with goal of helping them achieve the highest level of performance in their industries and professional careers. During these highly complex and data-driven times, we believe than every individual should be knowledgeable of the frameworks and the tools required to dive deep into data and re-emerge with valuable information, to help their company and themselves achieve breakthrough improvements. SSMI's mission is to provide the necessary frameworks and tools to enable any company enhancing the quality of their products, services and ultimately to increase the satisfaction of their clients.

Program Architect

Dr. Harry has been widely recognized as one of the original architects and pioneer of Six Sigma inside Motorola at which he was responsible for the research and development of advanced engineering and statistical models. All the training offered by SSMI are the result of 30 years of application of these models. Even though many companies worldwide now offer Lean and Six Sigma trainings, SSMI is the only Institute in the world to possess the original material and framework which made this methodology one of the most successful and powerful in the world.



Certification Path

In order to obtain the certification each candidate must complete the following requirements:

- ***Submission of 5 completed Improvement projects***
- ***Presentation of a paper/article on Lean Six Sigma***
- ***Recommendation letter from a sponsoring organization***
- ***Successfully passing the Master Black Belt Qualification test***
- ***Completion of 80 hours of class training***



Program Modules

The body of knowledge associated with this program of study is organized into 10 days of live webinar, plus estimated five days of laboratory in which the candidate will put together all the requirements for the certification. The topics and the modules on which the candidates will be trained are the following:

- Lean Six Sigma Black Belt Recap
- Innovation Tools
- Integration of Lean and Six Sigma
- Project & Program Management
- Project Selection Process (PSP)
- Advanced Statistical Tools (Multivariate Analysis, Logistic Regression, Conjoint Analysis)
- Design for Six Sigma (DFSS)
- Design of Experiment (DOE)
- Enterprise-wide Lean Six Sigma Deployment – Best Practices and Case Studies
- Lean Six Sigma Standards ISO 13053 – 1/2 and ISO 18404
- Additional Lean Metrics
- Business Process Management (BPM)
- Integration of Industry 4.0
- Measurement System Analysis
- Management Control and Reporting System
- Mixed Model Value Stream Mapping
- Six Sigma Success Factors for Leaders
- Growth Model and Case Studies
- Six Sigma Coaching and Leadership

Software e-learning MindPro®

To each participant of the SSMI® Lean Six Sigma Master Black Belt

Training Program will be given a one-year access to our online e-learning

training platform, MindPro®, which contains 80 hours of training video, all

delivered by Mikel J, as well as access to 27 process

simulators, 17 calculators and many case studies

on real world Lean Six Sigma projects. In addition

upon certification, each candidate will be placed

in our Global Lean Six Sigma Registry, which

contains the details of all SSMI Belts in the world.



The Global Lean Six Sigma Registry



Benefits of an SSMI® Lean Six Sigma Certification



Better Execution

Six Sigma links strategic initiatives to operational improvements to create efficiencies for your business.



Build Customer loyalty

Six Sigma helps to target your customer needs so you can improve the things that matter most to your customers.



Create Greater Returns

Six Sigma helps to lower the operational costs and reduce the turnaround time in delivery of products and services to bring about higher customer satisfaction.



Certifies your Talent

A Lean Six Sigma Certification is the proof that you have the experience and skills to deliver quality service that matches customer expectations.



Improves your work performance

Professionals with Lean Six Sigma skills earn close to \$120,000 with global opportunities.



Opens Doors

A Lean Six Sigma credential can get you access to globally renowned companies of your choice.



Applies Everywhere

Six Sigma Certifications are based on achieving excellence while providing quality services. The concepts and techniques can be adapted to any real-world challenge across industries, market segments and geographies.

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