



Lean Sigma

Training 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 Sigma Training will endow the participant with the knowledge and skills necessary for understanding and applying the basic concepts, tools, procedures, practices, and methods associated with Six Sigma and the general field of process improvement. In addition, the participant will glean the time-proven knowledge, methods and tools associated with the best practices of a modern lean enterprise. The participant will learn how to solve on-going operational problems and discover how to enhance or otherwise streamline daily operations. Naturally, the lean tools and methods presented in this course can serve as an excellent entry point for initiating the deployment of Six Sigma.

In this sense, the Lean Sigma program can increase the power of virtually anyone working in an industrial or commercial enterprise that is striving to realize a never-ending stream of continuous improvements. Reinforcement of major concepts, techniques, and application is realized through exercises, scenarios, and focused case studies. Through this training, the participant will gain tremendous insight into the logic and reasoning which underlies Six Sigma and the aims of breakthrough improvement.



Target Audience

This program of study has been designed for individual contributors and managers seeking vertical mobility or pursuing horizontal opportunities within their respective fields of practice. The successful candidate enjoys working with data and solving problems, as well as working in a project-based, team-oriented environment. Basic arithmetic and computer skills are essential. In this context, a rudimentary understanding of Excel is highly recommended, but not essential. Furthermore, a most rudimentary understanding of algebra is a plus, but not required. Generally speaking, the successful completion of any undergraduate degree program will likely support the academic demands of this program.

Program Goals

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

- Understand the Six Sigma DMAIC methodology and the supporting set of basic analytical tools
- Apply basic Lean Six Sigma knowledge and skills in support of work-team goals, objectives and tasks
- Utilize the fundamental principles and practices of Lean Six Sigma to better frame and solve daily problems

Program Focus

The Lean Sigma program of study will focus on several key areas:

- Six Sigma principles, practices, tools and application tactics
- Lean principles, practices and application tactics
- Types and uses of performance data, sampling schemes and data collection
- 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 SSMI® Lean Sigma Certification each and every candidate must complete the following steps:



Online Self – Paced or Class Training

The total instructional time for the SSMI® Lean Sigma Training is 2 days (classroom) or 12 hours (online). Of course, for the online format participants can take the time they need and set their own schedule.

Knowledge Assessment Exams

Completion of 6 Knowledge Assessments Exams. Each module assessment comprises of 6 to 66 questions which participants need to score more than 70%

SSMI International Certification

Upon the completion of every requirement the candidate will receive the certificate for the SSMI® Lean Sigma Training Program.



Program Modules

The body of knowledge associated with this program of study has been configured to develop the essential entry - level skills that underpins the successful practice of Lean Six Sigma. The topics are defined by competency based training modules, where each module is comprised of instructional steps. Segment and topic titles are as follows:

1. Breakthrough Vision

- Content Overview
- Driving Need
- Customer Focus
- Core Beliefs
- Deterministic Reasoning
- Leverage Principle
- Performance Breakthrough

2. Business Principles

- Quality Definition
- Value Proposition

3. Process Management

- Performance Yield
- Hidden Processes
- Measurement Power
- Performance Benchmarks
- Defect Opportunity

4. Value Focus

- Value Creation
- Recognize Needs
- Define Opportunities
- Measure Conditions
- Analyze Forces
- Improve Settings
- Control Variations
- Standardize Factors
- Integrate Lessons
- Application Example

5. Lean Practices

- Lean Thinking
- Constraint Theory
- Continuous Flow
- Pull Systems
- Visual Factory
- Kanban System

- PokaYoke System
- 6S System
- 7W Approach
- Kaizen
- Value Stream Mapping
- 6M Approach
- A3
- Overview of Flow
- Hiejunka
- TPM
- Jidoka
- Lean Wrap - Up

6. Quality Tools

- Variable Classifications
- Measurement Scales
- Problem Definition
- Focused Brainstorming
- Process Mapping
- SIPOC Diagram
- Force - Field Analysis
- Performance Sampling
- Check Sheets
- Analytical Charts
- Pareto Charts
- Run Charts
- Multi - Vari Charts
- Correlation Charts
- Frequency Tables
- Performance Histograms
- Basic Probability
- Concept Integration



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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