# bsi.

# "Achieve Six Sigma Green Belt Certification at your own pace..."

Each module leads you to the next in the certification pathway!
Enroll now in these online Six Sigma Green Belt CLL Modularized Courses!

## PROGRAM OVERVIEW

The BSI Six Sigma Green Belt (SSGB) CLL Modularized Courses is an online professional certification program designed and offered to professionals in all types of industry, but still conducted LIVE by our Lean Six Sigma Master Black Belt in the comforts of your homes.

## PLAN OF STUDY

It is designed to cater to professionals who do not need to complete their Six Sigma Green Belt classroom training within a certain period of time. In keeping with the spirit of openness, the SSGB CLL Modularized Courses will not structure nor put timelines on your Coursework completion.

## PHASE 1
### Define, Measure and Analyze Phases

| | COURSE TITLES | # of hrs | DATES | RATES |
|---|---|---|---|---|
| SSGB CLL M1 | Introduction to Six Sigma | 1.5 hrs | 18 May, 01 June | 2,500.00 |
| SSGB CLL M2 | DMAIC Approach | 2 hrs | 22 April, 18 May, 01 June | 2,700.00 |
| SSGB CLL M3 | Process Mapping | 2 hrs | 23 April, 19 May, 02 June | 2,700.00 |
| SSGB CLL M4 | Data Collection & Graphical Tools Using Minitab | 3 hrs | 24 April, 19 May, 02 June | 3,000.00 |
| SSGB CLL M5 | Descriptive Statistics using Minitab | 3 hrs | 20 May, 03 June | 3,000.00 |
| SSGB CLL M6 | Measurement System Analysis Using Minitab (SSGB Course) | 4 hrs | 20 May, 03 June | 3,200.00 |
| SSGB CLL M7 | Process Capability Analysis using Minitab (SSGB Course) | 3 hrs | 21 May, 04 June | 3,000.00 |
| SSGB CLL M8 | Cause & Effect Analysis (SSGB Course) | 2 hrs | 21 May, 04 June | 2,700.00 |
| SSGB CLL M9 | Process Variation Reduction | 2 hrs | 22 May, 05 June | 2,700.00 |
| SSGB CLL M10 | Six Sigma Green Belt PHASE 1 Exam - (Online or Face-to-Face) | 2 hrs | 22 May, 05 June | 2,700.00 |

## PHASE 2
### Analyze, Improve and Control Phases

| | COURSE TITLES | # of hrs | DATES | RATES |
|---|---|---|---|---|
| SSGB CLL M11 | Failure Mode and Effect Analysis (SSGB Course) | 2 hrs | 15 June | 2,700.00 |
| SSGB CLL M12 | Hypothesis Testing using Minitab | 4 hrs | 15 June | 3,200.00 |
| SSGB CLL M13 | Analysis of Variance using Minitab | 4 hrs | 16 June | 3,200.00 |
| SSGB CLL M14 | Correlation and Simple Linear Regressions using Minitab | 4 hrs | 16 June | 3,200.00 |
| SSGB CLL M15 | Solution Identification, Evaluation and Implementation Planning | 3 hrs | 17 June | 3,000.00 |
| SSGB CLL M16 | Process Control and Standardization | 2 hrs | 17 June | 2,700.00 |
| SSGB CLL M17 | Statistical Process Control Charts - Variable Control Charts using Minitab (SSGB Course) | 4 hrs | 18 June | 3,200.00 |
| SSGB CLL M18 | Statistical Process Control Charts - Attribute Control Charts using Minitab (SSGB Course) | 4 hrs | 18 June | 3,200.00 |
| SSGB CLL M19 | Six Sigma Green Belt PHASE 2 Exam - (Online or Face-to-Face) | 2 hrs | 19 June | 2,700.00 |
| SSGB CLL M20 | Six Sigma Green Belt PROJECT REVIEW | | to be announced | 5,000.00 |

**BSI Connected Learning Live (CLL)** is a real-time, online way of training that delivers our world-class learning programs to you through an engaging and interactive experience, regardless of your location. Although tutor may be far away and your fellow delegates in different locations, we bring you together in a virtual classroom on the web.

NOTE: These courses are offered year-round. You will be advised by our Course Administrator on which course(s) you may enroll at any given time.

**PHASE 1**
Define, Measure and Analyze Phases

| | COURSE TITLE | COURSE DESCRIPTION | COURSE AIM | COURSE OUTCOME | PRE-REQUISITES |
|---|---|---|---|---|---|
| SSGB CLL M1 | **Introduction to Six Sigma** | This overview course is designed to provide a broad understanding of the Six Sigma improvement methodology, concepts, and language. | To understand the Six Sigma improvement methodology and its corresponding tools, and phases of implementation. | Participants will be able to understand the Six Sigma methodology and when to use a specific tool relative to the nature of the problem. | None |
| SSGB CLL M2 | **DMAIC Approach** | This course is designed to provide an understanding Define-Measure-Analyze-Improve-Control methodology. This is presented with case studies and examples drawn from service, business process, and manufacturing applications. | To understand the DMAIC methodology. | Participants will be able to understand the iterative and logically-sequenced process in improving a business process using the Define-Measure-Analyze-Improve-Control approach. They will be able to select and scope process improvement projects; develop measurable CTQs (Critical to Quality) and understand what is a process capability metric; use statistical tools to analyze the current state of the process; initiate statistical solution(s); and convert it to practical solution(s) that will be sustained in the long-term. | None |
| SSGB CLL M3 | **Process Mapping** | Process mapping is one of the fastest ways to reduce errors, increase productivity, and improve customer satisfaction. Given our years of real-world experience across a variety of industries, this course is designed to teach participants to map their business processes and identify critical areas for improvement. | To learn how to map business processes and identify critical areas for improvement. | Participants will be able to create simple graphical tools for documenting the flow of a process, i.e., the current (As-Is) state. This will be used to uncover complexities in the form of an excessive number of decision points that may contribute to delays or even defects. | None |
| SSGB CLL M4 | **Data Collection and Graphical Tools using Minitab** | This course is designed to equip participants to effectively and efficiently plan for collecting process improvement data; and use it into more meaningful information in the form of graphical tools. This course is designed using Minitab as its statistical software. | To learn how to effectively and efficiently plan in collecting process improvement data and use it to have more meaningful information. | Participants will be able to plan the data gathering by creating a document that will ensure that all process metrics are determined and the 4W2H (Who, What, When, Where, How, and How Much) are agreed prior to the collection of the process data.

Participants will also be able to understand what type of graph will be used to transform a process's measure into a meaningful information. They will be able to create and interpret these graphs using Minitab. | None |
| SSGB CLL M5 | **Descriptive Statistics using Minitab** | This is an introductory course in statistics designed to provide participants with the basic concepts of data analysis and statistical computing. Topics covered include basic descriptive measures, such as measures of location, spread, and shape of the process. This course is designed using Minitab as its statistical software. | To learn how to use basic descriptive statistics in determining the state of a business process. These metrics will then be used to gauge how much a process has progressed after an improvement initiative. | Participants will be able to calculate from a sample of observations, most often to form an estimate of some population parameter. They will be able to create and interpret these estimates using Minitab. | None |
| SSGB CLL M6 | **Measurement System Analysis using Minitab (SSGB Course)** | This course covers techniques for analyzing the variation within a measurement system, determining its suitability for use, and ways to improve measurement systems. The GR&R analysis techniques used in this training program are in compliance with IATF 16949:2016 requirements and AIAG MSA Manual. | To understand and determine how much a measurement system is contributing to the total variation in a process. | Participants will be able to calculate and interpret a measurement system that should be accurate and precise. It should be applied repeatedly to the same object and the measurements produced should be close to one another, i.e., repeatable. It should also be able to produce accurate and consistent results over the entire range of concern, i.e., it should be linear. It should produce the same results when used by any properly trained individual, i.e., the results should be reproducible. Lastly, when applied to the same items, it should produce the same results in the future as it did in the past, i.e., it should be stable. | SSGB CLL M5 |
| SSGB CLL M7 | **Process Capability Analysis using Minitab (SSGB Course)** | This course equips the participants to determine if a stable process is capable of meeting a customer's specification. Process capability is based on statistical techniques that are used to predict the complete output of a process based on a relatively small sample. This course is in compliance with IATF 16949:2016 requirements and AIAG SPC Manual. | To understand and determine if a process is capable in meeting a customer's requirement. | Participants will be able to calculate process capability metrics, i.e., Cp, Cpk, Pp, Ppk, that will be an indicator in determining how much of a process will fit in the specification limits of the customers. | SSGB CLL M5 |
| SSGB CLL M8 | **Cause & Effect Analysis (SSGB Course)** | This course is designed to equip participants to have a general understanding of a structured problem solving approach, which one can then apply in their own daily work. | To understand and determine the cause(s) of a process/business performance gap. | Participants will be able to conduct an in-depth analysis to determine the cause(s) of the process problems. | SSGB CLL M1 SSGB CLL M2 |
| SSGB CLL M9 | **Process Variation Reduction** | The course covers basic quality principles which characterize processes and reduce variability in business processes. Participants will get acquainted with a logically-sequenced methodology to help the organization improve their business processes. | To understand and determine how to reduce process variation that will lower costs and improve products, processes, and services. | Participants will be able to reduce the variations in a process by determining the types of process factor (controllable or noise) and what actions are needed to address these. | SSGB CLL M5 SSGB CLL M6 SSGB CLL M7 SSGB CLL M8 |
| SSGB CLL M10 | **Six Sigma Green Belt PHASE 1 Exam (Online or Face-to-Face)** | This is a **REQUIRED** Examination to establish competence in the subject matter. | To remember Six Sigma tools; and analyze, and evaluate situations and case studies that will be applied in the Candidates' own workplace. | Participants demonstrate proficiency of the Six Sigma methodology through a written examination. | SSGB CLL M1 to M9 |

**PHASE 2**
Analyze, Improve and Control Phases

| | COURSE TITLE | COURSE DESCRIPTION | COURSE AIM | COURSE OUTCOME | PRE-REQUISITES |
|---|---|---|---|---|---|
| SSGB CLL M11 | Failure Mode and Effect Analysis (SSGB Course) | This overview course is designed to help participants assess their organization's risk of failure. Failure Mode and Effects Analysis (FMEA) is an essential component of a preventive action program. This course helps the participants to implement this vital methodology while analyzing risks, determining areas in need of action, and applying mistake-proofing techniques. This course is in compliance with IATF 16949:2016 requirements and AIAG FMEA Manual. | To assess an organization's risk of failure by analyzing risks; determining areas in need of action; and applying mistake-proofing techniques. | Participants will be able to delineate all possible failures, their effect on the system, the likelihood of occurrence, and the possibility that the failure will go undetected. They will be able to create a tool that provides an excellent basis for classification of characteristics, for identifying CTQs and other critical variables. | SSGB CLL M10 |
| SSGB CLL M12 | Hypothesis Testing using Minitab | Hypothesis testing allows a participant to make decisions about problems based upon statistically significant data. Depending on the nature of the hypothesis and data available, different tests should be applied. In this course, participants will learn about 5 different statistical tests. | To make decisions about process pain points based on statistically significant data. | Participants will be able to test the statistical significance of their null hypothesis, i.e., that there is no difference between the population of the sample and specified population (or between the populations associated with each sample). These are proven with specified risks of error, to be untrue. Hence, using the alternative hypothesis, instead. | SSGB CLL M10 |
| SSGB CLL M13 | Analysis of Variance using Minitab | Analysis of variance (ANOVA) is a statistical technique that is used to check if the means of two or more groups are significantly different from each other. ANOVA checks the impact of one or more factors by comparing the means of different samples. In this course, participants will learn the One-Way ANOVA. | To make decisions about process pain points based on statistically significant data of two or more groups of data. | Participants will be able to subdivide the total variation of a set of data into meaningful component parts associated with specific sources of variation for the purpose of testing some hypothesis on the parameters of the model or estimating variance components. | SSGB CLL M10 SSGB CLL M12 |
| SSGB CLL M14 | Correlation and Simple Linear Regression using Minitab | This course introduces participants to correlation as a means of quantifying bivariate relationships.They will learn how to describe relationships between two numerical quantities and characterize these relationships graphically through simple linear regression models. | To learn how to describe relationships between two numerical quantities and characterize these relationships graphically. | Participants will be able to compute and interpret the degree of linear relationship between two sets of numbers, i.e., cause and effect, and be able to predict the effects of an input factor using the simple linear regression model. | SSGB CLL M10 |
| SSGB CLL M15 | Solution Identification, Evaluation, and Implementation Planning | This course gives a logical and systematic way to identify, evaluate, and implement solutions to a process which has undergone data measurement and analysis. | To learn how to give a logical and systematic way to identify, evaluate, and implement solutions to a process which has undergone data measurement and analysis. | Participants will be able to logically and systematically identify, evaluate, and implement solutions using industry-tested tools that will ensure that solutions are cause-centric and are sustainable. | SSGB CLL M10 SSGB CLL M11 to M14 |
| SSGB CLL M16 | Process Control and Standardization | This course outlines the logical and systematic way to sustain the gains that were achieved in the Define, Measure, Analyze, and Improve Phases. | To learn how to undertake a logical and systematic way of sustaining an improved process. | Participants will be able to draw up process control and standardization plan that will ensure that the implemented solutions are sustained to promote bottomline results and turn around the process. | SSGB CLL M10 SSGB CLL M15 |
| SSGB CLL M17 | Statistical Process Control Charts - Variable Control Charts using Minitab (SSGB Course) | This course provides participants to analyze variable process data into sound information upon which to make decisions. It allows process performance tracking on a real-time basis, allowing for corrective actions to be taken before failure occurs. The best decisions are made using facts and data. This course is in compliance with IATF 16949:2016 requirements and AIAG SPC Manual. | To learn how to analyze variable process data into sound information upon which to make decisions. Variable type data are data that can be measured using a continuum, e.g., length, weight, temperature, etc. | Participants will be able to create variable control charts (X-bar R, X-bar S, and X-MR) to detect out-of-control symptoms that signify the presence of a special cause(s) of variation in a process. | SSGB CLL M10 SSGB CLL M16 |
| SSGB CLL M18 | Statistical Process Control Charts - Attribute Control Charts using Minitab (SSGB Course) | This course provides participants to analyze attribute process data into sound information upon which to make decisions. It allows process performance tracking on a real-time basis, allowing for corrective actions to be taken before failure occurs. The best decisions are made using facts and data. This course is in compliance with IATF 16949:2016 requirements and AIAG SPC Manual. | To learn how to analyze attribute process data into sound information upon which to make decisions. Attribute type data are data that represent the number of defects and number of defective products. | Participants will be able to create attribute control charts (p, np, c, and u) to detect out-of-control symptoms that signify the presence of a special cause(s) of variation in a process. | SSGB CLL M10 SSGB CLL M16 |
| SSGB CLL M19 | Six Sigma Green Belt PHASE 2 Exam (Online or Face-to-Face) | This is a REQUIRED Examination to establish competence in the subject matter and is a prerequisite to being Certified as SSGB. | To remember Six Sigma tools; and analyze, and evaluate situations and case studies that will be applied in the Candidates' own workplace. | Participants demonstrate proficiency of the Six Sigma methodology through a written examination. | SSGB CLL M11 to M18 |
| SSGB CLL M20 | Six Sigma Green Belt PROJECT REVIEW | This is a REQUIRED documented evidence to establish competence in the subject matter and is a prerequisite to being Certified as SSGB. | To apply the Six Sigma methodology by leading a process improvement project in the Candidates' own workplace. | The Participants will be able to: <br> - demonstrate mastery of Six Sigma Green Belt body of knowledge. <br> - demonstrate proficiency at achieving results through the application of the Six Sigma methodology <br> - recommend, lead, and participatein Six Sigma project team. <br> - work closely with other Process Owners to apply formal data analysis. <br> - successful completion of one (1) Six Sigma project using the DMAIC approach within 8 months after completing the SSGB CLL Coursework. | SSGB CLL M10 SSGB CLL M19 |