



Online Lean Six Sigma Black Belt Certification Course

75 Hours / 6 Months

Course Description

Six Sigma Black Belts streamline organizational processes through strategic improvement projects. These highly skilled professionals will lead and mentor a team of Green Belts to complete projects that deliver sustainable results. This online Six Sigma training course will help you prepare for the Lean Six Sigma Black Belt certification exam. You will be enabled to transform your organization by reducing costs, increasing revenue, and improving collaboration. You will learn how to manage multiple projects and ensure their alignment meets organizational goals.

Upon completion of this course and the required project, you will be prepared for the Lean Six Sigma Black Belt Certification exam.

Prerequisites

To be successful in this course, it is strongly recommended that you complete your Black Belt project at your current place of employment. Black Belt-level process improvement projects require significant real-time data, which is easier to obtain when you are presently employed. Projects must also be based on an actual business and are subject to approval by a Master Black Belt. Examples include:

- Manufacturing Floor – Reduced manufacturing product defects
- Human Resources Department – Reduced recruitment cycle time
- Accounting Department - Reduced accounts payable invoice processing costs

If you are currently unemployed, you should instead take a Green Belt level certification course like Lean Six Sigma Green Belt.

You must be a Green Belt to take the Black Belt certification exam. In order to take the Lean Six Sigma Black Belt Certification course, you will be required to provide an approved Lean Six Sigma Green Belt Training Certification certificate or test out of the Lean Six Sigma Green Belt course. You can bypass testing out if you present a qualifying Green Belt Certificate which is:

- Issued by a regionally accredited higher education institution.
- ASQ Issued for a Green Belt course that covers both Lean and Six Sigma concepts and tools (not only Lean, or only Six Sigma).

What You Will Learn

- Describe the ways that Black Belt Training enhances the Green Belt body of knowledge
- Define the process used to select an appropriate Black Belt Project
- List and define the influence and facilitation skills that help Black Belts improve their leadership capabilities
- Describe how to coach Green Belts and other Lean Six Sigma practitioners through each Phase of DMAIC
- List the steps involved in testing the measurement system, sampling the data, and assessing process capability
- Describe the steps involved in conducting hypothesis tests to assess theories of root cause
- Identify which type of tests are appropriate for any given data set
- Describe the steps involved and the different uses for Design of Experiments
- Identify which type of control charts are appropriate for any given data set
- Describe how and why to apply visual management to an improved process
- Describe how to construct an effective project storyboard

Hardware Requirements

- This course can be taken on either a PC or Mac.

Software Requirements

- PC: Windows 8 or newer.
- Mac: OS X Snow Leopard 10.6 or later.
- Browser: The latest version of Google Chrome or Mozilla Firefox are preferred. Microsoft Edge and Safari are also compatible.
- Adobe Acrobat Reader. [Click here](#) to download.
- Software must be installed and fully operational before the course begins.

Other

- Email capabilities and access to a personal email account.

Course Outline

MODULE	TOPICS COVERED
1: Introduction to Black Belt Training	<ul style="list-style-type: none"> • Overview of Black Belt Training • Project Selection - Advanced • Build Leadership Skills
2: Define Phase – How to define the problem	<ul style="list-style-type: none"> • Conduct Process Walks • Strengthen Leadership Skills • About Your Black Belt Project
3: Measure Phase – How to measure the current process	<ul style="list-style-type: none"> • Lay Statistical Groundwork • Test your Measurement System • Sample the Data • Assess Process Capability • Strengthen Leadership Skills
4: Analyze Phase – How to identify the cause of the problem	<ul style="list-style-type: none"> • Lay Hypothesis Testing Groundwork • Test Discrete Data • Test Continuous Normal Data • Test Continuous Non-Normal Data • Test Correlation • Strengthen Leadership Skills • About Your Black Belt Project
5: Improve Phase – How to implement and verify the solution	<ul style="list-style-type: none"> • Design Experiments • Strengthen Leadership Skills • About Your Black Belt Project
6: Control Phase – How to maintain the solution	<ul style="list-style-type: none"> • Select Control Charts • Create Visual Management • Strengthen Leadership Skills • About Your Black Belt Project