

Lean Six Sigma Green Belt

Course Summary

Description

The Six Sigma Green Belt course is designed to enhance technical problem-solving skills. Instruction is application focused, therefore requiring all participants to successfully complete a project while completing the classroom portion of the training. The focus of the instruction is knowledge transfer demonstrated by real-time application of technical problem-solving skills.

The accelerated Six Sigma Green Belt program and methodology focuses on employees who need to execute the tools as part of their overall jobs. Green Belts have two primary tasks; first, to help deploy the success of Six Sigma tools and techniques and second, to lead small-scale improvement projects within their respective areas. Green Belts can do much of the legwork in gathering data and executing experiments in support of a Black Belt project as they become more proficient they can increase the Black Belts effectiveness.

Six Sigma is a proven technique for methodically dissecting a complex problem and determining root causation. Six Sigma uses statistical methods to determine how various factors affect a dependent variable or feature of a product that may be causing defects or process problems. Six Sigma Green Belt Training consists of 40 hours of classroom training and a project. Students will use SigmaXL as a statistical software package that they will get to keep at the end of the session. A laptop or PC is required for this class. Students will be trained per IASSC® guidelines, and have the opportunity to test for certification. All students will receive a license for SigmaXL statistical software. Students are required to complete a project. A virtual project will be provided for those students who are not currently in the workforce or those who do not have a suitable project.

Topics

- Define Phase
- Measure Phase
- Analyze Phase
- Improve Phase
- Control Phase

Audience

The accelerated Six Sigma Green Belt program and methodology focuses on employees who need to execute the tools as part of their overall jobs.

Prerequisites

Before taking this course, students should have basic Microsoft Excel skills and intermediate Math Skills.

Duration

Five days

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Course Outline

I. Define Phase

- A. Six Sigma Overview
- B. The Fundamentals Of Six Sigma
- C. Lean Six Sigma Projects
- D. Lean Fundamentals

II. Measure Phase

- A. Process Definition
- B. Six Sigma Statistics
- C. Measurement System Analysis
- D. Process Capability

III. Analyze Phase

- A. Patterns Of Variation
- B. Inferential Statistics
- C. Hypothesis Testing
- D. Hypothesis Testing: Normal Data
- E. Hyp Testing: Non-Normal Data

IV. Improve Phase

- A. Simple Linear Regression
- B. Multiple Regression Analysis

V. Control Phase

- A. Lean Controls
- B. Statistical Process Control (Spc)
- C. Six Sigma Control Plans