

Lean Six Sigma Black Belt Boot Camp

Course Overview

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This is a 5-day class

The accelerated lean Six Sigma Black Belt program and methodology allows students to complete certification requirements faster than traditional Six Sigma and Lean training programs. NOTE: The cost of the certification exam is included with the price of the course. Additionally, this course will earn you 35 PDUs.

Who Should Attend

This course is designed for business professionals with a college degree or those professionals who have significant experience in business operations. Also invited to attend are students who have completed a Green Belt program through an external vendor or through an in-house program.

Course Outline

1 Lean Six Sigma Overview

Review Lean Six Sigma
DMAIC Model
Black Belt Roles and Responsibilities

2 Lean Six Sigma Leadership

Stakeholder Management
Tollgate Reviews
Leading Teams
Change Management
Project Selection Strategies

3 Measure Phase

Introduction to SPC XL software
Measurement Systems Analysis
Sampling Strategies and Calculations
Process Capability; DPMO Calculations
Rolled Throughput Yield
Charts: Histogram, Pareto, Box Plot and Scatter Plot
Lean Metrics

4 Analyze Phase

Generating Root Cause Hypothesis
Validating Hypothesis
Scientific Method and P-Values
Statistical Testing: T-Tests, ANOVA
Statistical Testing: Proportion Tests, Chi-Square
Statistical Testing: Correlation and Regression

5 Improve Phase

Lean Solution Concepts
Design of Experiments (DOE)
Failure Modes and Effects Analysis (FMEA)
Capturing Improvement Data



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6 Control Phase

Statistical Process Control
Control Charts: C Chart, P Chart, X-bar & R Chart
Project Communication and Replication

7 Black Belt Test