

Certified Lean Six Sigma Green Belt (CLSSGB)™

Course Outline & Module Information



www.gaqm.org

What Modules are covered?

Six sigma and Organizational Goals

- 1) What is Six Sigma
- 2) Value of Six Sigma
- 3) Organizational drivers and metrics
- 4) Organizational goals and Six Sigma projects

Lean Principles in the organization

- 1) Lean principles in the organization
- 2) Lean concepts and tools
- 3) Value-added and non-value-added activities
- 4) Theory of constraints

Design for Six Sigma (DFSS) in the organization

- 1) Quality function deployment (QFD)
- 2) Design and process failure
- 3) Road maps for DFSS
- 4) Six Sigma – Define – I

Introduction to the Define Phase

- 1) Process elements
- 2) Identify customers
- 3) Collect customer data
- 4) Analyze customer data
- 5) Translate customer requirements

Project Management Basics

- 1) Project charter and problem statement
- 2) Project scope
- 3) Project metrics
- 4) Project planning tools
- 5) Project risk analysis
- 6) Project closure

Six sigma and Organizational Goals

- 1) What is Six Sigma
- 2) Value of Six Sigma
- 3) Organizational drivers and metrics
- 4) Organizational goals and Six Sigma projects

Other Tools and Techniques

- 1) Design of Experiments
- 2) Building Charts
- 3) Ten Questions Regarding Six Sigma
- 4) Course Wrap Up

Process Analysis and Documentation

- 1) Process Modelling
- 2) Process Inputs and Outputs
- 3) Probability and Statistics
- 4) Drawing valid statistical conclusions
- 5) Central limit theorem
- 6) Basic probability concepts

Collecting and Summarizing Data

- 1) Types of data and measurement scales
- 2) Data collection method
- 3) Techniques for assuring data accuracy and integrity
- 4) Descriptive Statistics
- 5) Graphical methods

Multi-vari Studies

Simple linear correlation and regression

Introduction to Improve and Control Phase

Design of Experiments

Statistical Process Control (SPC)

Implement and Validate Solution

Control Plan

Lean Process Improvement

- 1) Understanding Lean
- 2) The Toyota Production System
- 3) The Toyota Production System House
- 4) The Five Critical Improvement Concepts
- 5) Understanding Value with the Kano Model
- 6) Types of Waste
- 7) Creating a Lean Enterprise
- 8) Understanding Lean
- 9) The Plan, Do, Study, Act (PDSA) Cycle
- 10) Using the R-DMAIC-S Model
- 11) Lean Thinking Tools
- 12) Kaizen Events
- 13) Data Gathering and Mapping

www.gaqm.org

What Modules covered in this E-Course?

- 1) Overview: Six Sigma and the Organization
- 2) Six sigma and Organizational Goals
- 3) Lean Principles in the organization
- 4) Design for Six Sigma (DFSS) in the organization
- 5) Introduction to the Define Phase
- 6) Project Management Basics
- 7) Other Tools and Techniques
- 8) Process Analysis and Documentation
- 9) Collecting and Summarizing Data
- 10) Multi-vari Studies
- 11) Simple linear correlation and regression
- 12) Introduction to Improve and Control Phase
- 13) Design of Experiments
- 14) Statistical Process Control (SPC)
- 15) Implement and Validate Solution
- 16) Control Plan
- 17) Understanding Lean
- 18) The Toyota Production System
- 19) The Toyota Production System House
- 20) The Five Critical Improvement Concepts
- 21) Understanding Value with the Kano Model
- 22) Types of Waste
- 23) Creating a Lean Enterprise
- 24) Understanding Lean
- 25) The Plan, Do, Study, Act (PDSA) Cycle
- 26) Using the R-DMAIC-S Model
- 27) Lean Thinking Tools
- 28) Kaizen Events
- 29) Data Gathering and Mapping

www.gaqm.org