Lean Six Sigma Green Belt Certification Training

Organizations, both public and private, need to work faster, reduce costs, and maintain high standards of consistency and quality. They can achieve these goals through improvement programs like Lean and Six Sigma. The Lean process emphasizes waste reduction and improving process speed, and Six Sigma stresses an analytical approach to the elimination of defects and reduction of variation. When combined, they can solve organizational problems and improve performance, leading to a competitive edge. This training prepares new Green Belts to lead projects and contribute to improving services and manufacturing by using the DMAIC (Define, Measure, Analyze, Improve, and Control) model.

Who should attend?

Employees of any organization (including manufacturing, healthcare, finance, engineering, customer service, and sales) where Lean & Six Sigma methodologies are being used or considered.
Lean & Six Sigma practitioners interested in learning about new concepts and tools for making their improvement projects more successful.
Those interested in taking the first step toward a Lean Six Sigma Black Belt Certification.

Return on Investment

For the participant

1. Gain the ability to lead a real-world process improvement project at your organization
2. Contribute to your organization's performance by improving a strategic process
3. Add a valuable credential to your résumé

For your organization

1. Streamlined processes and reduced waste through process improvement
2. Improved profitability and customer satisfaction
3. Problem solving across functional areas

Instructor

Heather McCain is currently a Professor of the Practice for Project Management at the University of Kansas. She has more than 25 years of experience in quality engineering and management. She works with companies to implement continuous improvement methodologies and provides training on quality, project management, and process improvement. Recently she was the quality manager for consumer product at Garmin International. Prior to joining Garmin, Heather was with Hallmark Cards and AlliedSignal (now Honeywell) Aerospace and Automotive. Heather is a senior member of American Society for Quality (ASQ) and is extremely active in her local ASQ section. She is also involved with the Joint Engineering Council of Kansas City as the past president. Heather is a Certified Quality Engineer and Certified Manager of Quality/Organizational Excellence. She has a bachelor's degree in electrical engineering from Kansas State University and a master's degree in engineering management from the University of Kansas. She received her doctorate in technology management from Indiana State University.

Class Overview and Delivery

Included are both statistical and non-statistical techniques used for continuous process improvement such as process definition, process flow diagrams, data collection techniques, measurement techniques, cause and effect diagrams, control charts and process capability analysis. Attendees will learn to use the Minitab software to focus the Measure, Analyze and Improve phases on achieving positive business results.

The course is delivered online as a self-paced course. Students will have assignments, which will be submitted and graded online. The exam for the Green Belt certification will also take place online. It is an unproctored, open-book exam.

Your textbooks, L*ean Six Sigma and Minitab* and *Six Sigma Memory Jogger II*, will be sent to the address you use for registration at no additional fee. All other class materials will be shared through Blackboard, KU's learning management system.

The DMAIC Process

DEFINE – learn the tools to identify and/or validate your improvement project, illustrate the business processes, define customer requirements and prepare to lead project teams.
- Identify, Prioritize and Select the Improvement Opportunity
- Develop and Build a Project Team Charter and an Effective Team
- Identify Customers and Customer Requirement
- Define and Map Process to be Improved

MEASURE – learn and practice using the tools needed to determine the critical measures and develop a measurement plan to document process performance.
- Determine What to Measure and How to Manage That Measurement
- Evaluate Variation and the Measurement System
- Determine Process Performance
- Introduction to Minitab

ANALYZE – learn how to analyze the data to identify root causes and identify opportunities for improvement, learn how to determine the causes of variation and customer dissatisfaction
- Identify Potential Root Causes
- Apply Failure Modes and Effects Analysis (FMEA)
- Conduct Sources of Variation Studies and Correlation Analyses
- Minitab Analyze Phase Applications

IMPROVE – learn how to apply a variety of solution identification methods and how to gain approval for the solution

- Apply Lean Tools
- Generate Solutions
- Rank and Select Solutions
- Minitab Improve Phase Applications

CONTROL – learn how to develop and employ a control plan to ensure the targeted results, learn to identify standardization methodologies and encourage continuous process improvement.

- Develop a Control Plan
- Implement Statistical Process Control