Six Sigma Green Belts are vital members of any Six Sigma improvement team and must be equipped to conduct or participate in Six Sigma Projects. This program is comprised of five consecutive days of intense training which will provide participants with a technical foundation of the Six Sigma tools. Participants will learn and apply the DMAIC (Define, Measure, Analyze, Improve, & Control) improvement methodology. The program includes the initiation of an improvement project by each participant which demonstrates their understanding of Six Sigma define phase tools.

D M A I C

Upon successful completion of the Six Sigma Green Belt Certification Program, each participant will be awarded a certificate attesting to the attainment of all requirements and criteria, designating them as a Lean Hospitals' Certified Six Sigma Green Belt

There are no prerequisites or previous experience of Statistical Process Control required for this training program.Participants are required to have a laptop computer with a Microsoft operating system. The computer must have the ability to download a free 30 day trial version of Minitab from the Minitab website.

Certification requires:

- Attendance at all training sessions
- Initiation of a Six Sigma improvement project
- A presentation demonstrating an understanding of the implementation of the tools associated with the Define phase of the DMAIC methodology.
- A passing grade on the comprehensive examination

Tom Zidel is president of Lean Hospitals, a consulting company, which provides consulting, facilitation and training to healthcare organizations. With more than 25 years of experience in lean and Six Sigma implementation, he has guided many organizations on their lean journey. He has dedicated the last 11 years to working exclusively with healthcare organizations and is the author of the best selling book "A Lean. Guide to Transforming Healthcare". Tom has trained and/or mentored hundreds of healthcare professionals from many of our nation's leading hospitals, including Yale New-Haven Health System, Johns Hopkins Hospital and Aurora Health Care, in the use of Lean and Six Sigma methods and tools.

Tom's presentations and workshops are stimulating, energetic and functional. In his most recent book, "*Lean Done Right, Achieve and Maintain Reform in Your Healtbcare Organization*.", he explains the two paths of implementation necessary to create a truly lean enterprise.



T: (866) 831-5165 W: www.leanhospitals.org

SIX SIGMA GREEN BELT TRAINING AND CERTIFICATION



TRAINING AND CERTIFICATION FOR HEALTHCARE PROFESSIONALS

Day 1:

- Introduction to Six Sigma
- ${\it \ensuremath{\, \Theta}} \ \ {\rm Introduction} \ {\rm to} \ {\rm DMAIC}$
- **Q** Introduction to Minitab
- ♀ The Define Phase of DMAIC
 - SIPOC (Supplier, Input, Process, Output, Customer)
 - ♀ COPQ (Cost of Poor Quality)
 - ♀ CTQ (Critical to Quality)
- Project Selection
- **9** Project Charter

Day 2:

- Introduction to Statistical Process Control
- Sormal distribution (Shape, Center, Spread)
- **@** Central Limit Theorem
- **Q** The Measure Phase of DMAIC
- **@** Measurement System Analysis
- Process Mapping
- Project Presentations

Day 3:

- **Q** The Analyze Phase of DMAIC
- PGA (Practical, Graphical, Analytical)
- Analysis o Interquartile Range
- Pareto Charts
- ⊌ Histograms
- Scatter Diagrams
- Box Plots
- Project Presentations

Day 4:

- **Q** Design of Experiment
- Q 2k Full Factorial experiment
- Main Effect and Interactions
- Interpolation using coefficients

Day 5:

- **@** The Control Phase of DMAIC o Control Charts
- **Q** Review
- **@** Final Questions and Answers
- **@** Comprehensive Examination

SIX SIGMA GREEN BELT

Training and Certification for Healthcare Professionals A 5-Day Educational Program Leading to Green Belt Certification

DEFINE: The define phase involves project selection and clearly stating the problem, the project scope, the process inputs and outputs, and identifying those inputs which are critical to quality. Tools include: Project Charter, SIPOC, CTQ, COPQ, VOC and many others which clarify the project's customers, suppliers, stakeholders, and objectives

MEASURE: The measure phase requires a through understanding of the process as it is presently performed.Training provides a clear understanding of, measures of central tendency, standard deviation, Interquartile range, populations, samples, sampling methods, data collection methods, process capability, rolled throughput yield, measurement system analysis, and more.

ANALYZE: The analyze phase employs practical, graphical and analytical methods. This involves critical thinking, Pareto charts, scatter diagrams, histograms, box plots, hypothesis testing, understanding confidence intervals, etc.

IMPROVE: Participants will learn to conduct full factorial design of experiments (DOE), as well as, how to interpret the results. Cube plots, main effects, interactions and interpolation of data points are a few of the tools used to interpret DOE results.

CONTROL: Control means process monitoring and includes run charts, individual and moving range charts, as well as, identifying trends, cycles, abnormal fluctuations and other indicators of special cause variation.





