



Global OpEx Solutions

Six Sigma Black Belt 4 wk Program 3/5/12

Course Code: SSBB-V01

Lean reduces waste by identifying and solving problems, while, Six Sigma reduces waste by reducing process variation. Waste elimination is paramount in achieving the productivity required for organizations to survive and compete. Lean and Six Sigma complement each other to make it a powerful system to eliminate waste. Our Black Belts combine Six Sigma & Lean techniques as they lead their organizations on the waste elimination journey.

Participants can discover how to embark on a sustainable and successful continuous improvement journey by gaining expertise in the proper use of Lean and Six Sigma Tools and Techniques. Each class member will gain certification supporting their proven capability in applying the well respected DMAIC process resulting in not just finding an answer but identifying the RIGHT Solution to their business problems.

Learning Objectives

- ◇ Become a proven/successful business problem analyst through utilizing statistical techniques to identify the correct solutions.
- ◇ Learn how to know which Lean or Six Sigma tool or technique to apply
- ◇ Ensure sustainability by implementing controls to implemented solutions
- ◇ Enterprise transformation using Lean and Six Sigma
- ⇒ *Successful participants will earn ASQ certification*

Participant Obligations

- ◇ Laptop with Minitab software loaded
- ◇ Two manager approved projects

Instructors—Jamey Crichton

A certified Six Sigma Master Black Belt with a Masters Degree in Applied Statistics from Ohio State University has over 27 years of applying statistical strategies and tools to solve business problems, improve processes, and return bottom line results. As a lead instructor at Motorola University Jamey has successfully trained over 40 waves of Black Belt students and hundreds of Green Belt candidates as well. Jamey has had successful consulting assignments with over twenty well known companies.



T. Ron Gewin,

A certified Lean/Six Sigma Master Black Belt with a M.B.A. from the University of Texas and certification from G.E., Motorola University, and Dresser, Inc. has 40 years of Lean Deployment and training experience in addition to 10 years of Six Sigma training and facilitation. Ron successfully mentored over 100 Black Belts, 400 Green Belts, and 650 Lean Champions while leading the corporate deployment of Lean/Six Sigma at Dresser, Inc.

Key Topics

- ◇ Process Capability
- ◇ Simple and Multiple Regression Analysis
- ◇ Gauge R & R
- ◇ Multi-Variance Analysis
- ◇ DOE
- ◇ Correlation vs Causation
- ◇ Lean Tools and techniques
- ◇ Response Surface Methodology

Who should attend

- ◇ Corporate Executives
 - ◇ Plant Manager
 - ◇ Engineer
 - ◇ Quality Or Continuous Improvement Leader
- Note: Green Belt Precertification is NOT REQUIRED**
Certified Green Belts may skip Week I & 25% discount

Agenda

Week 1 Mar 5, Mon 8:00—Fri 12:00 (Green Belts may skip)
Week 2 Apr 9, Mon 8:00—Fri 12:00
Week 3 May 14, Mon 8:00—Fri 12:00
Week 4 Jun 4, Mon 8:00—Fri 12:00

Location

Texas State University
1555 University Blvd.
Round Rock, TX 78665, USA

Registration & Fees

\$6300/ea (contact us for monthly installments)
[Registration Form](#) [Online Registration](#)
ASQ certification: \$299 for members, \$449 non-members

Table of Contents by Week

Week I—Mar 5, 2012

Overview Lean tools and techniques
Define Phase
 Summary
 Team Charter
 SIPOC Diagram
 Top Down Flow Chart
 Functional Deployment Map
 Process Map Analysis
 Quick Win Opportunities
 Identify Customer Needs
 Kano Model
 Team Building
Measure Phase
 Summary
 Cause and Effect Diagram
 Cause and Effect Matrix
 Operational Definition
 Data Collection – Sampling
 Summary Statistics and Basic Graphs
 Evaluate Measurement System
 DPMO
 Capability Analysis
Appendix
Minitab Workbook

Week III—May 14, 2012

Overview
Regression Analysis
 Simple Linear Regression
 Analysis of Residuals
 Multiple Regression
Design of Experiments
 Overview and Terminology
 Traditional Approaches
 Factorial Experiments
 Steps in Experimentation
 Design of Full Factorial Experiments
 Analysis of Full Factorial Experiments
 Fractional Factorial Experiments
Improve Phase
 Generate Solutions
 Select Solutions
Minitab Workbook

Week II—Apr 9, 2012

Overview
Subjective Analysis Tools
 Ask Why 5 Times
 Multi-Voting
 FMEA
Basic Statistical Tools
 Statistical Concepts
 Hypothesis and Confidence Intervals
 Independence, Normality, Power
 ANOVA
 Bartlett, Levene Tests
 Scatterplots and Regression
 Chi-Square Test
 Logistic Regression
 Appendix
Sources of Variation Analysis
 Introduction to SOV
 Multi-Vari Charts
 Applying SOV to Processes
 Measurement Systems Analysis
 Applying SOV to Measurement Systems
Team Building Part 2
 Meeting Effectiveness
 Decision Making Process
Minitab Workbook

Week IV—Jun 4, 2012

Overview
Response Surface methods
 RSM Introduction
 RSM Designs
 RSM Analysis
Improve Phase
 Introduction
 Recommend Solutions
 Implement Solutions
Control Phase
 Process Integration
 Control Plan
 Control Charts
 Closure
 Summary
Lean Tools
Minitab Workbook

Cancellation Policy: Enrollment fee less \$200.00 non refundable registration charge will be refunded up to one week before the event. Substitutions may be made any time prior to the start of the workshop. This event may be cancelled by OpEx Solutions for any reason (probability very low), OpEx Solutions will refund the enrollment fee, however, is not responsible for incidental costs incurred by registrants.