



## **Lean Six Sigma Green Belt Training Program**

**Onsite – 80 Hours – Optimum class size 6-10 students - \$23,000**

### **Overview:**

The Lean Six Sigma Green Belt Training Program combines the proven methods of Lean with the power of Six Sigma to allow you to solve difficult problems within your business. The curriculum is based on the approach pioneered by Motorola and utilized by successful companies of all sizes.

This training will introduce the participants to the structured data driven problem solving methodology known as DMAIC (Define, Measure, Analyze, Improve, Control). This methodology in concert with the Lean Six Sigma business improvement strategy seeks to identify, reduce and eliminate defects from products, processes and business transactions.

Participants will learn critical thinking skills, how to reduce variation and non-value added activities, gain leadership skills and focus on the voice of the customer. All while reducing defect rates, cost and cycle time. Participants will utilize the DMAIC model and will learn statistical methods and software (Minitab) to analyze company data and make process improvements.

You do not need to be a statistician or math wizard to attend. Statistics are presented with the “keep it simple statistically” approach so participants can master the skills. A combination of presentation and hands-on exercises and simulations are used throughout to ensure a practical working knowledge of the methods.

Participants who take this class, successfully complete an application project and pass the Lean Six Sigma certification exam will be certified as a LSS Green Belt.

### **Training Objective:**

The objective of this training will be to have each participant complete at least one management approved project within their organization which will eliminate waste, improve cycle time and/or improve quality. Projects will address specific quality, productivity and process issues using a data driven approach to minimize or reduce process variation. Each student will be required to complete and document a Green Belt project illustrating the business and quality impact of their work for certification. Students will use a Statistical Software package in class (Minitab) to solve statistical analysis problems.

### **Skill Attainment:**

Lean Six Sigma Green Belt Training – Participants will learn how to apply the crucial observational, analytic and interpersonal skills of a successful Lean Six Sigma Green Belt. These skills include:

- Introduction and Fundamentals of Lean Six Sigma - DMAIC
- Introduction to Minitab Statistical Software
- Introduction to Statistics
- Selection and Chartering a Project
- Team Dynamics and Facilitation,
- Defining Customer Requirements (VOC) and Baselining Current Process
- Developing effective measurements
- Analyzing and improving the process



- Variation Reduction and Error proofing techniques
- Workload Balancing, Flow and Pull techniques
- Normal Distribution other distributions
- Process Capability - Cp, Cpk, Ppk
- Statistical Process Control Concepts,
- Design of Experiments introduction
- Team Problem Solving skills,
- Standard Work and Project Documentation
- Control Plans
- Skills will be used to initiate and complete projects using statistical data to determine, implement, and sustain improvement solutions

### **Green Belt Training Schedule (10 Days Total):**

1) 4-hour Program Structure and Project Selection Training Workshop. Topics include:

- Lean Six Sigma Overview
- Project Chartering
- Organizing for Success
- Candidate Selection
- Linking Strategy to Results
- Tollgate/Phase Reviews
- The Role of the Project Sponsor
- Communication and Change Acceleration

2) 4-hour Green Belt Candidate and Project Sponsor Training Workshop. Topics include:

- Green Belt and Project Sponsor Roles
- Project Management
- Project Charters
- Tollgate/Phase Reviews
- Introduction to Minitab
- Certification Requirements

3) 72 hours of classroom and hands-on learning activities, exercises, demonstrations, testing and project presentations utilizing Minitab V18 software and Catapults. The following topics are taught and practiced during the training:

#### **DEFINE**

- Lean Six Sigma Overview & Methodology
- Voice of the Customer (VOC)
- Supplier-Inputs-Process-Output -Customer (SIPOC)
- Process Mapping
- Value Stream Mapping
- Observation Analysis

#### **MEASURE**

- Introduction to Descriptive Statistics
- Measurement and Data Collection



- Measurement Systems Analysis
- Baselining Techniques – 5S, Overall Equipment Effectiveness

#### **ANALYZE**

- Normal Distribution and Introduction to Other Distribution Types
- Attribute versus Variable Data
- Process Capability
- Graphical Techniques
- Statistical Process Control
- Cause & Effect and FMEA risk assessment
- Inferential Statistics
- Introduction to Hypothesis Testing
- Confidence Intervals

#### **IMPROVE**

- Kaizen
- Changeover Reduction
- TPM/Autonomous Maintenance Techniques
- Process Flow Improvements
- Process Regression Analysis
- Introduction to Design of Experiments
- Standard Work
- Solution Generation and Selection

#### **CONTROL**

- Control Plans
- Statistical Process Control Charts – Variable & Attribute
- Visual Controls
- Error proofing
- Communication and Change Acceleration

#### **LSS Green Belt Training Overview and Expectations**

- 10 days of Interactive Classroom instruction with instructor lead support
- The sessions will be held over a two to three month period and include Classroom Learning, Exercises, Activities, Demonstrations, On-the-Job practical Application, Homework and Tests.
- Within six months after training initiation the participants are expected to complete at least one successful project approved by top management.
- Skill requirements
  - Basic Algebra
  - Basic Computer Skills – spreadsheets, word processing, email
  - Access to a computer/laptop both in and out of class
  - Access to Minitab software (company to provide)
- 100% attendance for all classes is required



### **Expectations from Management**

- Will select and approve participant application projects
- Will allow time for project completion in between classes
- Will serve as champions and sponsors for their participants when they need support and resources
- Will attend ending project presentations at a minimum.

### **What the students can expect**

- Clear and intuitive classes focused on making Lean Six Sigma simple and fun
- Workshops and practical application sessions – work as a team on exercises including DOE live experiments
- Learn how to manage Lean Six Sigma projects to get results
- One-on-One help as needed in between classes
- Finish a project successfully with a clearly identified and verifiable financial impact
- Have fun!