



## SIX SIGMA Certification

### SIX SIGMA, GREEN BELT TRAINING

**Six SIGMA program is a certification program of the American Certification Institute.**

#### **Program Overview:**

Six Sigma is an integrated, discipline proven approach to identify improvement projects, measure results, analyze performance data, and improve and create process solutions that eliminate the cause of customer-end defects. This program provides participants with an exposure to the tools and methods that are necessary to successfully contribute Six Sigma projects. Green Belts play a vital role within a Six Sigma initiative as they learn to contribute to the Black Belt's efforts of data collection and analysis, process mapping, and design of experiments.

#### **Who should attend:**

- Operations managers, supervisors, leads and other individual contributors (quality engineers).
- Engineers, administrators, manufacturing personnel.
- Consultants who want to incorporate Six Sigma, Green Belt in their service offerings.
- Individuals seeking to obtain practical skills in Six Sigma, Green Belt.
- Individuals wanting an introduction to Six Sigma thinking and techniques.

#### **What You Will Learn:**

- Understand and be able to explain the concept of Six Sigma.
- Identify the voice of the customer, their needs and requirements.
- Discover all the various ways to collect data.
- Learn to identify sources of variation and screen potential causes.



- Learn and apply the Six Sigma DMAIC tools as a member of an improvement team.
- Understand and apply the concepts of group dynamics.

### **Benefits:**

- Learn how to concentrate on and use many of the proven Six Sigma problem-solving and statistical tools to create value for the company.
- Learn the Define, Measure, Analyze, Improve and Control methodology.
- Learn to identify sources of variation, screen potential causes and identify the “vital few”.
- Learn the Statistical tools - including process flowcharting, SOP's, response and variables diagrams, Input-Process-Output (IPO) process, histograms, scatter diagrams, Pareto diagrams, control charts, run charts, design of experiments, and measurement systems.

### **Two Course Curriculum:**

The program is open to all interested persons who possess at least a high school diploma, and is recommended that students have one year of high school or college algebra.

1. Introduction to the DMAIC Methodology.
2. Expanding on the concepts of Analysis, Improvement and Control.

### **Professional Designation:**

Successful candidates are granted the designation of Certified 6-sigma Manager (Green Belt). The designation may be used just as similar recognitions are employed in accounting, insurance, medicine, law, and other professions. Either the full expression or the initials may be used after the individual's name on business cards, stationery, etc.

### **Completion Requirements:**

After the completion of the two course curriculum, a certificate of Six Sigma Green Belt Training will be awarded. Upon passing the certification examination (3 hour certification examination), students will be certified by the American Certification Institute as a “Certified 6-Sigma —Green Belt Degree”.



## **SIX SIGMA, BLACK BELT TRAINING (4 Courses)**

### **Program Overview:**

Six Sigma is a quantitative process that promotes improved effectiveness and efficiency in an organization. It is a quality improvement methodology structured to reduce product or service failure rates to a negligible level (roughly 3.4 failures per million opportunities). To achieve these levels, it encompasses all aspects of business, including management, service delivery, design, production and customer satisfaction.

While introducing the principles, concepts, and tool necessary to a Six Sigma quality program, this class also explores the strategic planning and cultural changes needed to implement such a program. Students will examine the major components of a Six Sigma quality program, the benefits and implications of becoming a quality driven organization, and the companies/countries using the Six Sigma quality model. Most importantly, students will learn how to apply the principles and tools in the work place.

The program is designed for those who need a solid foundation in process improvement, with bottom-line results. Standardizing a methodology to achieve Six Sigma allows one to focus on reducing the standard deviation within their individual processes rather than obsessing over methods. This standardization creates a common language and a common cause throughout the value stream.

### **Who should attend:**

- Operations managers, directors, and vice presidents.
- General business managers.
- Human resource managers, directors, and vice presidents.
- Engineers and engineering management.
- Information Technology Management.
- Consultants who want to incorporate Six Sigma in their service offerings.

### **What you will learn:**

- This course provides comprehensive training of the Six Sigma quantitative process. Upon completion of the program, you should have the abilities to:
- Understand the DMAIC methodology.
- Expand the concepts of analysis, improvement and control.
- Understand the application of statistical techniques.
- Accurately use the advanced statistical techniques and process control.



### **Benefits:**

- Increase productivity.
- Reduce cost of poor quality.
- Eliminate WIP defects.
- Reduce manufacturing costs.

### **Four Course Curriculum:**

The program is open to all interested persons who possess at least a high school diploma. It is recommended that students have one year of high school or college algebra. In addition, students should have at least 3 - 5 years experience in a quality-related job.

1. Introduction to the DMAIC Methodology.
2. Expanding on the Concepts of Analysis, Improvement and Control.
3. Application of Statistical Techniques.
4. Advanced Statistical Techniques and Processes.

### **Completion Requirements:**

After the completion of the four course curriculum, a certificate of attendance will be awarded. After the successful completion of the assigned project (project duration should not exceed one year) a Black Belt Certificate will be awarded. Upon passing the certification examination (3 hour certification examination), they will be certified by the American Certification Institute as a “Certified 6-Sigma Manager—Black Belt Degree”.