

Six Sigma Plus

An ATAC Product Description



AUBURN

TECHNICAL
ASSISTANCE CENTER

COLLEGE OF BUSINESS

Target perfection and learn how to achieve it.

Six Sigma is a highly disciplined management strategy to use statistical tools and project work to achieve consistent excellence in quality, reduce costs and deliver products to customers on time.



Six Sigma Training is for manufacturers, service firms, healthcare, pharmaceuticals, and other organizations interested in:

- Reduced Cycle Time • Better Control • Reduced Defects
- Improved Quality • Increased Customer Satisfaction

Components Include:

- Green Belt Training
- Black Belt Training
- Six Sigma Champion
- Root Cause Analysis
- Lean-Six Sigma Integration

6σ⁺ : Identify and remove the causes of defects and errors

No matter what kind of organization you're in, the Six Sigma experts from ATAC at Auburn University can help you make your processes nearly perfect -- 99.9997% defect-free!

Six Sigma is:

Six Sigma is a highly disciplined management strategy to use statistical tools and project work to achieve consistent excellence in quality, reduce costs and deliver products to customers on time. Six Sigma is a business management strategy, originally developed by Motorola that today enjoys widespread application in many sectors of business and industry. Six Sigma uses a problem solving methodology to:


- Define
- Measure
- Analyze
- Improve
- Control

It also is a way to make breakthrough improvements in your process that will show up on the bottom line; a very technical problem solving approach that works; a continuous improvement effort; a way to control variables that cause

defects in your products; a data driven problem solving approach that will steer you in the right direction; a metric to measure the true performance of your process.

Six Sigma training creates a special infrastructure of people within the organization ("Green Belts" "Black Belts") who are experts in these methods. Each Six Sigma project carried out within an organization follows a defined sequence of steps and has quantified financial targets (e.g. cost reduction or profit increase).

The statistical representation of Six Sigma describes quantitatively how a process is performing. To achieve Six Sigma, a process must not produce more than 3.4 defects per million opportunities.

 A Six Sigma defect is defined as anything outside of customer specifications. A Six Sigma opportunity is then the total quantity of chances for a defect. Process sigma can easily be calculated using a Six Sigma calculator.

Green Belt Training

Green Belts play an important role in the Six Sigma process improvement

projects. They have been characterized by some as being the "players" on the team. They execute and implement the tools and practices of the Six Sigma initiatives. They are the "front-line problem-solvers" in the organization.

Green Belt candidates can be employees at virtually all levels of the organization. They are not, however, usually in full-time process improvement positions. The designation "Green Belt" refers to people who have mastered the basic skills, and are assigned to Six Sigma projects as needed. Green Belts are usually led by the Black Belts to apply the right tools at the right time to make process improvements to relatively difficult problems.

Developing Green Belts in your organization is very important for the overall success of the Six Sigma initiatives. Benefits to the company are realized only when process information, through appropriate analysis, is transformed into knowledge.

The Green Belt course provides candidates the tools to turn that

information into knowledge that can be utilized throughout the company.

Black Belt Training

Our Black Belt course has two distinct parts: The in-class portion and a project. The in-class portion consists of four full weeks of lectures, exercises, and team-learning competitions. All of the statistical and quality tools needed to successfully complete a Black Belt project will be thoroughly presented so that the student can return to his/her facility and readily apply them.

Training uses a hands-on approach involving a mixture of your company's management and staff members.

The course follows the five-phase DMAIC approach. Students will learn how to first DEFINE opportunities. The next step is to MEASURE the performance of the process. The third phase is how to ANALYZE the opportunity, and seek out the potential causes of variation. Students will learn how to apply statistical methods to identify and root out these causes. The steps then are to IMPROVE and CONTROL the performance of the process. Students will learn the techniques of experimental design and response surface methodology. And finally to control the performance, the students will learn how to develop and implement solutions for maintaining the performance.

The successful completion of a Black Belt project is a vital part of the Black Belt training because in order to become certified by the American Society for Quality, the applicant must demonstrate competence. The reason the ATAC Black Belt program is called Six Sigma Plus is because an instructor will make at least three visits to your work site to assist the participants with their project. These visits will be at the request of the participant.

Six Sigma Champion

To succeed, a Six Sigma initiative must have the support at the highest tiers of the organization's management. The Champion is the focal point for this organizational support. The Champion should be experienced

in organizational change and well-grounded in the Six Sigma process. The Champion should have sufficient authority to make important management decisions as the Six Sigma effort proceeds and as project teams confront problems.

The Champion Course is an 8-hour class that consists of:

- The Basics of Six Sigma
- The Roles and Responsibilities of Six Sigma
- Launching Initiatives
- Defining Opportunities
- Project Scoping, Selection, Charter

In addition, Exercises and Examples are provided to assist managers to visualize how Six Sigma can be deployed in your company.

Root Cause Analysis

Root Cause Analysis is a process to determine the origin of a problem and if eliminated, the problem would no longer exist. It uses a set of interrelated resources and activities that transforms inputs into outputs. Employing this technique can prevent problems from recurring; foster continual improvement; and is based on fact rather than opinion in determining a true solution.

Visit www.AuburnWorks.org for more information and to learn about open enrollment course opportunities.

Auburn Technical Assistance Center was established in 1976 and is an affiliate of the Alabama Technology Network and an Economic Development Administration University Center. As an Outreach arm of the Auburn University College of Business, ATAC provides business and technical assistance, customized training, and consultation in implementing value-added strategies to manufacturers and other businesses, not-for-profit organizations and government agencies in Alabama and the Southeast.

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Lean - Six Sigma Integration

CEOs today face mounting pressures to innovate; yet finding ways to actually enable innovation remains a challenge for many. Top companies with successful track records of innovation, however, have discovered one possible solution. Lean Six Sigma, a relatively well-known approach for achieving operational excellence, can, as it turns out, do more than simply improve processes. It can help leaders discover innovation opportunities far beyond operations, enhance financial performance and create organizations that have an inherent inclination toward innovation.

What are the differences between LEAN and Six Sigma?

Lean Manufacturing grew out of the need to become more efficient. The initial questions were focused on the waste in the process.

Six Sigma grew out of the need to be defect-free. The initial questions were focused the cause of product variation.

To become world-class, a company needs to use both approaches. Our courses teach participants how to integrate Lean and Six Sigma into a through quality and process improvement system.

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