

Green Belt in Lean Six Sigma - Online Course

Certification

On successful completion of this program, Participants will be certified as Lean Six Sigma Green Belts. Certification is awarded by Florida Atlantic University (FAU), USA, by achieving the following:

- Complete the online training course, including all exercises and assignments during the course.
- Complete the 100 question online exam at the end of the course with a grade of 70% or higher.

The Certificate will be sent by post to the successful Participant, it includes the Participants name and course title. Successful Participants also earn 35 PDU's.

Overview

The course is available to Participants for a 4 month period, during this time you have full access to the course content. You can study at your own pace and on your own schedule as long as you fulfill the workload that is assigned weekly. Your online instructor is a Master Black Belt and is available for guidance, discussions and to give you feedback on your course work throughout the duration of the course (online support). Many of the assignments encourage you to participate with other students in discussions on the Discussion Board. The ability to look at and discuss the work of others is one of the value-added portions of our online course.

The course is delivered using The Blackboard Academic Suite. Blackboard software has become the most popular and proven online learning solution in the world.

Role of a Lean Six Sigma Green Belt

The role of the Green Belt is to form and facilitate Lean Six Sigma teams, manage Lean Six Sigma projects, assist in data collection, analysis and process mapping; and to implement tools, techniques and practices to achieve cost reduction and quality improvement. This course will provide the required skills and knowledge to fulfill this role.

Overall Course Goals

- Learn Lean Six Sigma methodology and process improvement techniques.
- Provide knowledge in data collection, analysis and process mapping; show how to implement tools and techniques to achieve cost reduction and quality improvement.
- Teach you how to think differently and do things differently when solving problems and improving processes.
- Give you confidence to form and facilitate Lean Six Sigma teams and to manage Lean Six Sigma projects.
- Emphasise Lean Six Sigma application in the real world.
- Assess your level of learning through exercises and practical application.
- Know when to rely on a Six Sigma Black Belt for statistical analysis.
- Help you achieve your personal, job and career goals.

Curriculum

The Curriculum is aligned with the recommendations of both the American Society for Quality (ASQ) and the International Society of Six Sigma Professionals (ISSSP), and seamlessly integrates Six Sigma, Project Management, and Lean Enterprise improvement methodologies. The course focuses on service and information systems/information technology, business processes as well as manufacturing processes, and examples from both types of businesses are included.

The Project Management portions of the course are aligned with *A Guide to the Project Management Body of Knowledge (PMBOK)* as published by the Project Management Institute. The course emphasizes the connection between project management and Lean Six Sigma, and how project managers can and will be more successful when using the Lean Six Sigma approach and Lean Six Sigma tools and techniques.

The Green Belt program consists of 30 lessons, each lesson has an assignment, deliverable or quiz associated with it. The lesson titles are:

- 1) Introductions and Getting Started
- 2) What Is Six Sigma?
- 3) $Y = f(X)$
- 4) Benefits and Impact of Six Sigma
- 5) Critical to Quality Characteristics
- 6) Common Cause and Special Cause Variation
- 7) Process Capability
- 8) Overview of Lean, Six Sigma and Theory of Constraints
- 9) Six Sigma Infrastructure Roles and Responsibilities
- 10) Selecting Six Sigma Projects
- 11) The Project Charter
- 12) Elements of a Project Plan
- 13) Identifying Customers and Stakeholders
- 14) Defining Customer Needs
- 15) Basic Measurement Concepts
- 16) Data Collection Techniques
- 17) Establishing Baseline Performance
- 18) Descriptive Statistics and Probability
- 19) The Histogram
- 20) The Pareto Chart
- 21) The Run Chart
- 22) Root Cause Analysis
- 23) The Perfect Business Process
- 24) The Scatter Diagram
- 25) Generating Alternative Solutions
- 26) Synthesising Solutions
- 27) Source Inspection and Mistake Proofing
- 28) Selecting a Solution
- 29) Standardised Work Instructions
- 30) The Process Management Plan and Project Closure

Who should attend?

- Team members participating in process improvement projects
- Professionals working in efficiency improvement and cost reduction roles
- Managers, Supervisors, Project Managers
- Programmers/Systems Analysts
- Candidates wishing to improve their skill sets in a highly relevant subject

- Candidates seeking to continue for Lean Six Sigma Black Belt Certification

Gains for Individual:

- Career advancement
- Personal growth
- Increased self-esteem and confidence
- Increased level of job performance
- Improved marketability

Gains for Companies:

- Growth and advancement
- Create an improvement environment with proven tools
- Increase level of performance through your most important asset, your employees
- Achieve organisational excellence in business process improvement
- Excellent Return on Investment (ROI)

Prerequisites

None

Textbook

The textbook for this course is entitled *The Six Sigma Way Team Fieldbook: An Implementation Guide for Process Improvement Teams* by Peter S. Pande, Robert P. Nueman and Roland R. Cavanagh. The book is included in the price of the course and is sent by post to the Participants postal address on receipt of payment.

Software and Computer Requirements

You will need Microsoft Excel software to complete several of the exercises. Examples of the use of Excel will be given in those instances where it can be used to produce charts, graphs or statistical analysis. You may also find it convenient to submit scanned images to complete some of the exercises. Statistical software (i.e. MINITAB) is **not** used or taught in the Green Belt program.