



## SSGB Certification Online Course and Exam

Delivery Method: Online

Validity for doing test: 6 Months

# SixSigma GreenBelt Certification Online Course and Exam

## Course Description

SixSigma GreenBelt course focuses on providing students with an understanding of the various SixSigma tools and techniques useful to improve the production process and minimize defects in the end product with a greater focus on the practical implementation of these tool and techniques in the organization

## Course Objective

Upon completion of the SixSigma GreenBelt course, participants will learn how to:

- Identify project selection and evaluation criteria.
- Plan and execute SixSigma projects
- Form and effectively lead a SixSigma project team.
- Apply DMAIC (Define, Measure, Analyze, Improve, and Control) and various SixSigma tools in process and quality improvement.
- Assess and manage project risk.
- Significantly increase profitability through SixSigma projects.
- Avoid pitfalls in implementing SixSigma.
- Integrate and enhance innovation and problem solving skills

Contact us to book a course

Phone: +46 (0) 44 590 4040

Mail: [info@innovationtech.se](mailto:info@innovationtech.se)

Visit our websites for more info

[www.innovationtech.se](http://www.innovationtech.se)

[www.e-training.se](http://www.e-training.se)

## Course Outcome

- This course aims to familiarize Participants with the tool and techniques, advantages, and challenges of the SixSigma methodology.
- Participants will be equipped with the knowledge needed for production process improvement in their organizations and help their organizations adopt SixSigma methodology.
- Participants are led through simulated case scenarios during which they use SixSigma concepts for solving simulated problems.
- Participants have knowledge pertaining to and can anticipate issues related to the practical implementation of SixSigma.
- Participants are armed with the proper tools to address, resolve, and take the lead on production issues in their organizations.
- Participants will develop superior problem solving skills that can be immediately applied in real world projects.

## Audience Profile

This course is for employees and organizations requiring a standardized approach to problem solving for the purpose of continuous improvement. This would include team leaders, supervisors, associates, Quality Assurance Engineers, Project Managers, Software Professionals, Practitioners, Quality Assurance team members, Working Executives and Senior Management that will dedicate a small portion of their time applying the DMAIC tools to their natural work area.

- Future managers who want to get certified as GreenBelt in SixSigma.
- Management and Engineering Students who are desirous to be more resourceful and employable.
- Project Management Professionals (PMP) who wants to earn PMI PDUs by learning nuances of Quality paradigm.
- Any other professional members who are doing research, innovations or consulting in process

## Course Outline

### Introduction to SixSigma

- History of Quality (Deming, Juran, JIT, Ishikawa, Taguchi, etc.)
- Evolution of SixSigma
- Defining SixSigma – philosophy and objectives
- Overview of SixSigma DMAIC process

### Stakeholders & Setting up a SixSigma Project

- Identifying and Documenting stakeholder requirements
- Project Selection Criteria
- Project Planning
- Managing Team Dynamics
- Important project management & planning tools

### SixSigma Methodology – Define

- Inputs – Need for SixSigma project, Executive management sponsorship, core team identified
- Tools
- Organization hierarchy
- High level process maps
- High level Pareto charts
- Idea generation and categorization tools

#### Outputs

- Project charter
- Established metrics
- Problem statement
- Roles & responsibilities

### SixSigma Methodology – Measure

- Objectives of Measure Phase
- Inputs – the outputs of the Define phase

### SixSigma Methodology – Improve

- Objectives of Improve Phase
- Inputs – outputs of the Analyze phase
- Tools
- Returns on investment
- Solution design matrix
- Design of experiment
- Taguchi robustness concepts
- Response surface methodology
- Project planning and management tools
- Prototypes

#### Outputs

- Cost / benefit for different solution
- Selection of solutions for implementation
- Implementation plan

### Tools

- Data collection tools and techniques
- Measurement scales
- Validation techniques (Gauge R & R)
- Statistical distributions
- Data mining
- Run charts
- Process map
- Stakeholder tools
- Process costs

### Outputs

- Well defined processes
- Baseline process capability
- Process parameters affecting CTQs
- Cost of poor quality (COPQ)
- Measurement system

### SixSigma Methodology – Analyze

- Objectives of Analyze Phase
- Inputs – outputs of the Measure phase
- Tools
- Ishikawa diagram
- Failure mode and effects analysis
- Hypothesis testing
- Process capability study

#### Outputs

- Important causes of defects
- Special and common causes of variation
- DPMO and sigma level

### SixSigma Methodology – Control

- Objectives of Control Phase
- Inputs – outputs of the Improve phase
- Tools
- Control plan
- Statistical process control
- Lean enterprise
- 5S
- Kaizen
- Kanban
- Total productive maintenance
- Measurement system reanalysis

#### Outputs

- Implemented solutions
- Revised measurement system
- Control plan for sustaining benefits
- Improves process capability
- Lessons learned