



Lean Six Sigma Green Belt

IT Solutions

Introduction

Six Sigma Green Belt course focuses on providing students with an understanding of the various Six Sigma 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 organisation.

Duration: 5 day

Class size: 10 students max

Times: 9:00am - 5:00pm

Price: Refer to our website for current course and package pricing

After the course?

Each student will receive:

- Certificate of completion
- Training manual
- 12 months FREE email support
- FREE class re-sit (if necessary)

About The Course

Our Six Sigma Green Belt course is designed to teach participants how to analyse and solve quality related problems and actively work within Six Sigma teams. Upon completion of this course participants will be able to define a Six Sigma project and process baseline, analyse data and apply DMAIC (Define, Measure, Analyze, Improve, and Control) and various six sigma tools in process and quality improvement.

Upon completion of the Six Sigma Green Belt course, participants will learn how to

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

Who Should Do This Course?

This Green Belt course is suitable for participants who want to grow with Six Sigma. Typically, a Green Belt will operate as a support player within a Six Sigma team and apply the principles and processes of Six Sigma in daily work situations.

Prerequisites

There are no pre-requisites for this courses. However, participants should have general understanding of personal computers and have basic numeracy skills.

Content

Unit 1: Introduction to Six Sigma

- History of Quality (Deming, Juran, JIT, Ishikawa, Taguchi, etc.)
- Evolution of Six Sigma: Difference from Traditional Quality Methods
- Defining Six Sigma – philosophy and objectives
- Overview of Six Sigma DMAIC process

Unit 2: Stakeholders

- Identifying Stakeholders
- Balanced Scorecard: Balancing the needs of all Stakeholders
- Data Collection and Analysis
- Understanding 'Kano' Model
- Benchmarking
- Important Process Performance Metrics
- Financial Measure: Net Present Value (NPV) and Present Value (PV)

Unit 3: Setting up Projects

- Project Charter
- Charter Negotiation
- Initiating Teams
- Stages of Team Evaluation
- Herzberg's Theory of Motivators and Hygiene Factors
- Handling Conflicts
- Understanding Conflict Intensity
- Management and Leadership Styles
- Understanding Roles Played by People in a Project
- Brainstorming: Nominal Group Technique (NGT)
- Brainstorming: Force Field Analysis
- Multi-Voting
- Project Planning Tools: PERT and CPM
- Project Planning Tool: Crashing
- Creating Affinity Diagrams
- Process Decision Program Charts (PDPC Charts)

Unit 4: Six Sigma Methodology – Define

- Input: Need for Six Sigma Project
- Input: Executive Management Sponsorship
- Input: Core Team Identified
- Tools: Organisational Hierarchy
- Creating High Level Process Maps
- Understanding Process Map Symbols
- Creating Pareto Charts

- Steps in Pareto Analysis
- Establishing Metrics
- Defining Problem Statement
- Outputs: Roles and Responsibilities

Unit 5: Six Sigma Methodology – Measure

- Objectives of Measure Phase
- Inputs: The Outputs of the Define Phase
- Data Collection Tools and Techniques
- Using Measurement Scales
- Validation Techniques
- Important Characteristics of Measurement Systems
- Probability Distributions
- Data Mining
- Using Run Charts
- Detailed Process Maps and Pareto Charts
- Stakeholder Tools
- Process Costs
- Outputs: Well-Defined Processes
- Measurement Systems
- Outputs: Baseline Process Capability
- Process Capability Impacting Critical to Quality
- Cost of Poor Quality (COPQ)

Unit 6: Six Sigma Methodology – Analyse

- Objectives of the Analyse Phase
- Inputs: The Outputs of the Measure Phase
- Tools: Ishikawa Diagram (Cause and Effect or Fishbone Diagram)
- Hypothesis Testing
- Process Capability Study
- Improving Process Capability
- Outputs: Important causes of defects
- Outputs: Special and common causes of variation
- Defective Parts per Million (DPMO) and Sigma Level

Unit 7: Six Sigma Methodology – Improve

- Objectives of Improve Phase
- Inputs: Outputs of the Analyse Phase
- Tools: Return on Investment (ROI)
- Tools: Solution Design Matrix
- Design of Experiments: Important Terms and Concepts
- Benefits of the Design of Experiments
- Taguchi Robustness Concepts
- Response Surface methodology
- Project Planning and Management Tools
- Prototypes

- Outputs: Cost and Benefit of Different Solutions
- Selecting a Solution to Implement
- Implementation Plan

Unit 8: Six Sigma Methodology – Control

- Objectives of Control Phase
- Inputs – Outputs of the Improve Phase
- Tools: Control Plan
- Lean Enterprise
- 5S
- Kaizen
- Kanban
- Total Productive Maintenance (TPM)
- Measurement System Re-analysis
- Implemented Solutions

- Revised Measurement System
- Control Plan for Sustaining Benefits
- Improved Process Capability
- Lessons Learned

Unit 9: Lean Six Sigma

- Lean is Speed
- Value Stream Map
- Total Supply Chain
- Pull System - Kanban
- Lean Six Sigma Logistics
- Standard Operations
- Operator Work Instructions
- Cycle Time Reduction and Takt Time

Unit 10: Case Study

Looking for course dates?

To view a full list of course dates, please visit our website at www.dynamicwebtraining.com.au
Alternatively please contact our office on **1300 888 724**