SIX SIGMA YELLOW BELT PROGRAM
<2-DAY PROGRAM>

Overview

Six Sigma is a Process Improvement methodology which uses statistics to achieve breakthrough improvements to provide products and services with the best value to customers at optimum price and quality.

This Six Sigma Yellow Belt program introduces participants to Process Improvement tools.

Learning Outcomes

Upon completion of this program, participants will be able to utilise basic Six Sigma tools to define, measure, analyse, improve and control processes resulting in improved quality and productivity.

Who must attend

This program is designed for teams who require basic Six Sigma tools for Process Improvement projects and for team members of more complex Six Sigma projects.

Methodology

This program utilises a combination of slides, hands-on activities and case studies to communicate program objectives to participants. Participants are encouraged to use examples from their own functional areas in group discussions.

Microsoft Excel will also be used to demonstrate the use of Six Sigma tools. It is advantageous for participants to bring their own computers with Microsoft Excel.

Course Outline

Day 1

9:00 am: Module 1 – Introduction to Six Sigma

- Definition and Background of Six Sigma
- Benefits of Six Sigma
- Challenges of Six Sigma
- Value Streams
- Input-Output Relationship
- The Leverage Principle and DMAIC

10:00 am: Module 2 – Define Phase

- Business Objectives
- Defect Definition
- Baseline and Goal
- Problem Statement

2:00 pm: Module 3 – Measure Phase

- Central Limit Theorem and Variation
- Cause and Effect Analysis to Determine Key Input Variables
  - Brainstorming
  - Fishbone Diagram
  - Cause-and-Effect Matrix
  - Root Cause Analysis / "5 Whys" Method

- Process Capability
  - Data Collection System
  - Measurement System Analysis
  - Process Mapping
  - Entitlement

5:00 pm: End of Day 1

Day 2

9:00 am: Module 4 - Analyse Phase

- Sample Sizes
- Confidence Levels and Decision Risks
- Analysing KPIVs
  - T-Tests
  - Correlations
  - Hypothesis Testing

12:00 noon: Module 5: Improve Phase

- Interactions of KPIVs
- Design of Experiments – concepts only

3:30 pm: Module 6: Control Phase

  - Poka-Yoke
  - Optimising, Standardising and Documenting
  - Statistical Process Control
  - Failure Mode and Effect Analysis (FMEA)

5:00 pm: End of Day 2