

SIX SIGMA GREEN BELT



Overview

This comprehensive course empowers individuals with a solid grasp of Six Sigma principles and methodologies, equipping them to identify and eliminate defects, inefficiencies, and waste within organizational processes. Through Green Belt training, learners focus on streamlining operations to boost efficiency, reduce costs, and enhance resource utilization, ultimately driving measurable financial benefits.

Participants will develop the ability to collect, interpret, and analyze data to support evidence-based decision-making. The course also introduces systematic problem-solving frameworks, including the DMAIC cycle (Define, Measure, Analyze, Improve, Control), enabling learners to address complex challenges and implement sustainable improvements across business functions.

Course outline

Module 1: Evaluation and Introduction to Lean Six Sigma

- History & Evolution of Six Sigma
- Six Sigma & Lean Definition
- COPQ
- Variation
- DMAIC Phases
- Six Sigma Roles & Responsibilities
- Quiz Module 1

Module 2: Define

- Project Charter
- Project Charter Contents
- Process Mapping
- SIPOC
- Identifying Customers & VOC
- Establishing VOC to CTQ

- KANO Model
- RACI Model
- Quiz Module 2

Module 3: Measure

- What is Data?
- Data Classification & Type
- Data collection plan
- Sampling & Sampling Strategies
- Mean
- Median
- Mode
- Range
- Variance
- Standard Deviation
- Case Study – Basic Statistics
- Normal Distribution
- Testing Normality
- Histogram
- Dot Plot
- Box Plot
- Time Series Plot
- Quiz Module 3

Module 4: Analyse

- Measurement System Analysis
- Accuracy & Precision
- Repeatability
- Reproducibility
- Process Capability
- Capability Formulas
- DPMO, DPU, DPO
- Rolled Throughput Yield
- 7 QC Tools
- Central Limit Theorem
- Hypothesis testing
- Alpha risk
- Beta Risk
- t-test
- Quiz Module 4



Module 5: Improve

- Improvement Strategy
- Regression
- Correlation
- Scatter Plot
- Brainstorming
- 5S
- FMEA
- Piloting Solutions
- Automation
- Mistake Proofing
- Quiz Module 5

Module 6: Control

- Statistical Process Control
- SPC Selection Process
- Control Plan
- Quiz Module 6

Certification

Participants receive a **Certificate of Completion** upon finishing all modules and assessments, recognizing their proficiency in advanced business ethics.

