bakkah

Lean Six Sigma

Green Belt Training Course

Certification provided by PeopleCert All talents, certified. IASSC

Why Bakkah?

Is a Saudi management consulting and education company that offers a wide range of products and services. We develop solutions tailored to our customer's needs.

Our team of highly experienced, certified professionals help your reach the best decisions that ensure you realize optimum business profits by delivering projects on time, cost, and quality. We pride ourselves in having the skills and knowledge based on best industry practices that enable us to provide a myriad of solutions for business strategy to the most functional and operative areas.

Bakkah in Numbers

Course Objective

After completing this course, you should be able to:

- Communicate using Lean Six Sigma concepts.
- Think about your organization as a collection of processes, with inputs that determine the output.
- Relate Lean Six Sigma concepts to the overall business mission and objectives.
- Use the concept of a Sigma Level to evaluate the capability of a process or organization.
- Understand and apply the five step DMAIC model as a framework to organize process improvement activity.
- Employ a wide range of process improvement techniques within the DMAIC model.
- Recognize the organizational factors that are necessary groundwork for a successful Lean Six Sigma effort.
- Employ your Six Sigma skills to lead a successful process improvement project delivering meaningful results to the organization.

Course Methodology

Online Training

- 7 Days - Online Training
- Exam Simulation
- Group Activities after each lesson.
- Access to additional References – Glossary/ Recommended Reading/ Syllabus.
- Material language will be in English.
- Discussion language will be in both English and Arabic.

Targeted Audience

Professionals who need to lead improvement projects and/or serves as team members as a part of more complex improvement projects, typically in a part-time role.

Course Outline

Introduction

- Fundamentals of Six Sigma
- Lean Enterprises
- Identify Lean Six Sigma Projects
- Six Sigma Statistics
- Evaluate Measurement Systems
- Baseline Performance
- Pattern of Variation
- Inferential Statistics
- Hypothesis Testing
- Regression Analysis
- Lean Controls
- Statistical Process Controls
- Six Sigma Control Plans

Tools to Define

- Basics of Six Sigma
- Fundamentals of Six Sigma
- Voice of the customer
- CTQ
- Basic Six Sigma metrics – COPQ, DPU, DPMO
- Pareto Analysis (80:20 rule)
- Gantt Chart
- Components of a Scope definition
- Identify Lean Six Sigma Projects
- Project Charter
- Financial Evaluation and Benefits
- Stakeholder Analysis
- Communication Plan Matrix
- VOC to CTQ
- CTQ Decision Tree
- Kano Analysis

Tools to Measure

- Define Process
- Process Mapping
- Top-down Charting
- Value Stream Mapping
- Cause and Effect Diagram
- FMEA
- Quick-Win
- Data Types and Measurement Scales , Sampling
- Data Collection Plan
- Basic Statistics
- Defects Vs Defective
- Variable vs Attribute Data
- Sampling
- Sampling Techniques
- Measurement System Analysis
- Measurement System Error
- Accuracy/ Stability/ Precision
- Gage Repeatability and Reproducibility
- Attribute Agreement Analysis
- Six Sigma Metrics
- Probability Distributions
- Review Basic Stats
- Process Capability/ Process Performance
- Measure of Central Tendency
- Standard Deviation
- Process Capability
- Process Performance
- Cpk Vs Ppk
- DPMO and Six Sigma Level

Tools to Analyze

- Multi-Vari Analysis
- Classes of Distributions
- Probability Distribution
- Normal Distribution
- Binominal Distribution
- Poisson Distribution
- Hypergemetric
- Normality Test
- Understanding Inferene
- Central Limit Theorem
- General concepts and goals of Hypothesis Testing
- Types of Hypothesis Testing
- Type I and Type II Errors
- 2 & 1 sample t-tests
- 1 sample variance
- One Way ANOVA
- 2 & 1 variance Test
- F-Test
- Levene's Test
- 2 & 1 sample proportion
- Chi-squared Test

Tools to Improve

- Scatter Diagram
- Correlation Analysis
- Regression Analysis
- Residuals Analysis
- Non-Linear Regression
- Multiple Linear Regression
- Box-Cox
- Example

Tools to Control

- Control Methods for 5S
- Kanban
- Poka-Yoke
- I-MR Chart
- Xbar – R Chart
- U Chart
- P Chart
- NP Chart
- Xbar – S Chart
- CumSum Chart
- EWMA Chart
- Cost/Benefit Analysis
- Elements of Control Plan
- Standards and Procedures
- Elements of the Response Plan

bakkah

9 2 0 0 0 3 9 2 8
1 1 2 1 0 1 1 4 1
/BAKKAHINC
contactus@bakkah.net.sa
www.bakkah.net.sa