Globally Trusted Education Provider

Lean Six Sigma Green ® Course Agenda

RESKILL.

Be Future Ready.

PROJECT MANAGEMENT | ITSM | INTERNET SECURITY | NETWORKING | CLOUD COMPUTING

10685 B, Hazlehurst Drive, Suite 15727, Houston, TX 77043, United States
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Course Description

Lean Six Sigma Green Belt Training Program

This course will explain the DMAIC methodologies in details and follows a practical approach in knowledge transfer through effective use of case studies, demos, and group discussions about real-time incidents. As professionals armed with this certificate, you will become enablers in continuous improvement in your organization. This course will train you to apply the DMAIC (Define, Measure, Analyze, Improve, Control) methodology, root cause identification, assess and evaluate performance, and implement solutions.

Take the first step towards exploring an opportunity to become a Lean Six Sigma Green Belt certified professional. Prepare for the Lean Six Sigma Green Belt Certification exam and fast track your career as a Lean Six Sigma Green Belt Practitioner.

> "The average salary for "lean six sigma green belt" ranges from approximately $70,349 per year for Business Process Analyst to $83,568 per year for Continuous Improvement Manager.- Indeed.com"

Who Should Attend

- **Quality System Managers**
- **Quality Engineers**
- **Quality Supervisors**
- **Quality Analysts, and Managers**
- **Quality Auditors**

Individuals seeking to bring significant cost savings to their organization and those interested in becoming a Lean Six Sigma Green Belt will benefit from this training.

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Course Benefits

At the end of this course, you will:

- Learn the principles and philosophy behind the Six Sigma technique
- Learn to apply statistical methods to improve business processes
- Design and implement Six Sigma projects in practical scenario
- Learn the DMAIC process and various tools used in six sigma methodology

Learning Lean Six Sigma Green Belt tools and methods enables you to develop a business process improvement roadmap for any service sector organization.

Acquire the Lean Six Sigma Green Belt training and certification necessary to successfully close process improvement projects and implement process control tools that will ensure that the benefits realized are sustained.

Course Eligibility

There are no formal prerequisites for participating in the Lean Six Sigma Green Belt Certification course;

However, basic understanding and knowledge about quality aspect and quality control will prove to be useful.

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COURSE OVERVIEW

Objectives
WHAT IS LEAN SIX SIGMA?
About ICERTGLOBAL'S LSSGB Course

INTRODUCTION TO SIX SIGMA

Basics of Six Sigma
Process for Six Sigma is DMAIC:
DMAIC Tools
What is Six Sigma?
Six Sigma Level Chart
Six Sigma --- Introduction to Qualifications
Why Six Sigma?
How Does Six Sigma work?
Six Sigma and Quality . From Where Does Six Sigma Come?
History of Six Sigma
Six Sigma and Business System

Lean Principles

What is Lean?
Why Use Lean?
History of Lean
Other Lean Wastes
Examples of Waste
Lean Concepts
Lean Techniques
Cycle Time Reduction
The Theory Of Constraints

DEFINE

Introduction
Prerequisites of a Six Sigma Project
Introduction to Define Phase
What is a Business Process?
Process Elements
Steps In Process
SIPOC Template
Sample SIPOC
SIPOC Notes
Owners and Stakeholders
Business - Stakeholder Relationship
Identify Customer
Internal Customers
External Customers
Collect Customer Data
Ways To Capture Customer Feedback
Examples How to Collect Customer data 66
Analyze Customer Requirements
Analyze Customer Requirements - Pareto Diagram
Pareto Chart --- An example
Pareto Chart --- Interpretation
Translate Customer Requirements
Translate Customer Requirements
Define CTQ
VOC - CTQ --- An Example
Translation Worksheet to Define CTQs
Translating Customer Requirements - QFD
QFD-An Automobile Bumper
Sample QFD Template
Problem Statement
. IS/IS NOT Template
IS/IS NOT Template - Example
Project Charter
Project Objective Criteria
Project Charter Sections
Sample Project Charter

MEASURE

Introduction to Measure Phase
Process Modeling
Common Symbols Of Flowchart:
Flowchart
Written Procedures
Work Instruction
Work Instruction - Example
Cause and Effect Matrix
Cause and Effect Matrix Template
Cause and Effect Matrix: How to update
Cause and Effect Diagram
Cause and Effect Diagram - Example
Analytical Statistics: Introduction to Hypothesis
Analytical Studies
Analytical Statistics
Enumerative Statistics
Central Limit Theorem
Central Limit Theorem: Graphical
Central Limit Theorem and Sampling Distribution of the Mean 1
Basic Probability Concepts
Basic Properties of Probabilities
Various Probability Rule
Addition Rule
Multiplication Rule
Types of Data
Measurement Scales
Data Collection Methods
Techniques for Assuring Data Accuracy
Simple Random Sampling versus Stratified Sampling
Descriptive Statistics-1 1
Descriptive Statistics - 2
Variance
Standard Deviation
Descriptive Statistics - 3
Descriptive Statistics - 4
Descriptive Statistics - 5
Graphical Method
Box and Whisker Plots
Run Charts
Scatter Plots
Pareto Charts

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ANALYZE

Causes for Variations in X
Causes of Variation - Examples
Create Multi-Vari Chart
Correlation Levels
Regression
Key Concepts
Simple Linear Regression (SLR)
Least Squares Method in SLR (Simple Linear Regression)
Simple Linear Regression - Example
SLR Using Excel,
Multiple Linear Regression
Key Concepts
Statistical and Practical Significance of Hypothesis Test
Hypothesis
Type I Error
Type II Error
Type I and Type II Errors - Key Concepts
Power of Test
Determinants of Sample Size - Continuous Data
Standard Sample Size Formula - Continuous Data
Standard Sample Size Formula - Discrete Data
Hypothesis Testing Roadmap
Hypothesis Test for Means (Theoretical)
Hypothesis Test for Variance and Proportions
Comparison of Means of Two Processes
Paired Comparison Hypothesis Test for Means (Theoretical)
Paired-Comparison Hypothesis Test for Variance - F-Test example
Hypothesis Test for Equality of Variance - F-Test Example
Hypothesis Tests (Practical)
F-Test
F-Test Interpretations
Hypothesis Tests (Practical)
2-Sample t-Test
2-Sample Independent t-Test Assumptions
2-Sample Independent t-Test
Paired t-Test
ANOVA (Comparison of More Than Two Means)
ANOVA using Excel
Interpreting Minitab Results
Chi - Square Test
Hypothesis Tests -- Summary points
Problem Statement
IS/IS NOT Template
IS/IS NOT Template - Example
Project Charter
Project Objective Criteria
Project Charter Sections
Sample Project Charter
Project Plan
Project Scope
Techniques for Identifying Project Scope
Project Primary Metrics 93
Secondary Project Metrics
Project Planning Tools
Network Diagrams
Project Planning Tool - Critical Path Method
Project Planning Tool - PERT
Project Planning Tool - Gantt Chart
Project Planning Tool - Work Breakdown Structure
Project Documentation
Vehicles for Project Documentation
Project Risk Management
Importance of Risk Analysis
Project Closure
. Team Tools - Multi - voting

IMPROVE

Introduction to Improve and Control
Piloting
Design of Experiments - An Introduction 323
Basic Terms - 1
Basic Terms - 2
Basic Terms - 3
DOE - A Plastic Molding Example
Components of DOE in the Molding Example
Full Factorial Experiment -Example
Main Effect
Interaction Effect
Design of Experiments - Runs
Design of Experiments --- Which Experimental Method?
Objectives & Benefits of SPC 3
Normal Probability Plots
Normal Probability Plots, cont.:
5Discrete Probability Distribution
Binomial Distribution
Binomial Distribution - Concepts
Defectives and Defects
Poisson Distribution
Poisson Distribution - Characteristics
Poisson Distribution - An Example
Continuous Distribution - Normal Distribution
Normal Distribution - Characteristics
Long Term v/s Short Term
Z-table Usage
Chi Square Distribution 5.71.
t - Distribution
f - Distribution: Characteristics
Measurement System Analysis
Objective of Measurement System Analysis
Measurement System Analysis
Sources of Variation
Gage Repeatability and Reproducibility
Component of GRR Study
Key Concepts
Measurement Resolution
Repeatability and Reproducibility
Repeatability and Reproducibility
Data Collection

Course Takeaways

You will:

- Be able to pass the Lean Six Sigma Certification Exam
- You will gain the confidence and competence to lead comprehensive Lean Six Sigma projects.
- You will learn and apply various Lean Six Sigma tools and techniques at a greater depth
- You will put to use the learning and collaborate with sophisticated statistical analysis software and tools to drive comprehensive Lean Six Sigma projects.

About Us

iCert Global having trained a little over 125,000 Working Professionals across the globe with 60% of the customer base from the Business to Consumer (B2C) Market and the remaining 40% from the Business to Business (B2B) Market with more than 400,00 quality hours of active training spreading across strategic locations like USA, Canada, Malaysia, Singapore, UAE, Saudi Arabia.

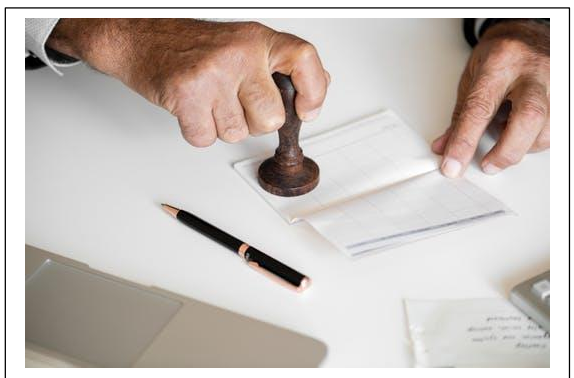
iCert Global conducts professional trainings on varied and diverse list: Project Management, Service Management, Quality Management, Agile & Scrum and Niche technologies.

iCert Global is one of the leading providers of professional certification courses for working professionals and companies.

Accredited Training Organization (ATO) & Accredited Examination Centre (AEC).

Operates in nearly 3 continents, across 50 countries

Success Rate Of 99%



Courses Accredited By Leading Governing Bodies

Trained More Than 100,000 Professionals From Different Verticals

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