PanelcsCourses

LEAN SIX SIGMA GREEN BELT CERTIFICATION TRAINING

Showcase your competency in subject matters contained within the phases of Define, Measure, Analyze, Improve and Control (DMAIC) as defined by the IASSC

Lean Six Sigma Green Belt Body of Knowledge™

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Benefits of LSSGB Certification

- Get well versed in the core to advanced elements of Lean Six Sigma Methodology
- Understand how to implement, perform, interpret and apply Lean Six Sigma at a high level of proficiency
- Lead improvement projects
- Gain a thorough understanding of all aspects of the Lean Six Sigma Method
- Advances your career, increases your employability, andenhances

Key Features

- 40 hours of instructor-led training
- 56 hours of high quality e-learning content
- 33 PDUs offered
- 4 simulation test papers, 4 real-life projects
- Aligned to IASSC,ASQ

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Modes of Engagement

Instructor-Led Classroom Training

2-Day CSM® Certification exam prep classroom training workshops conducted worldwide.

Instructor-Led Live Online Training

Provided to your company's employees across global locations through Citrix GoToMeeting or Cisco WebEx.

Self-Placed E-Learning

Anywhere, anytime access to E-Learning through a Learning Management System for employees across the globe.

Enterprise Training

In-House certified instructor-led 2-day CSM® certification training in your office across global locations.

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LSSGB Course Agenda

1. COURSE OVERVIEW

- Objectives
- What Is Lean Six Sigma?
- About Icertglobal's Lssgb Course

2. TARGET AUDIENCE AND COURSE PREREQUISITES

- Benefits of LSSGB for Professionals
- Benefits of LSSGB for Organizations
- Lean Six Sigma Green Belt Exam Pattern
- Lean Six Sigma Green Belt Exam

3. INTRODUCTION TO SIX SIGMA

- Agenda
- 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?

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- How Does Six Sigma work?
- Six Sigma and Quality
- From Where Does Six Sigma Come?
- History of Six Sigma
- Six Sigma and Business System
- Lesson III: Lean Principles Agenda
- What is Lean?
- Why Use Lean?
- History of Lean
- Other Lean Wastes
- Examples of Waste
- Lean Concepts

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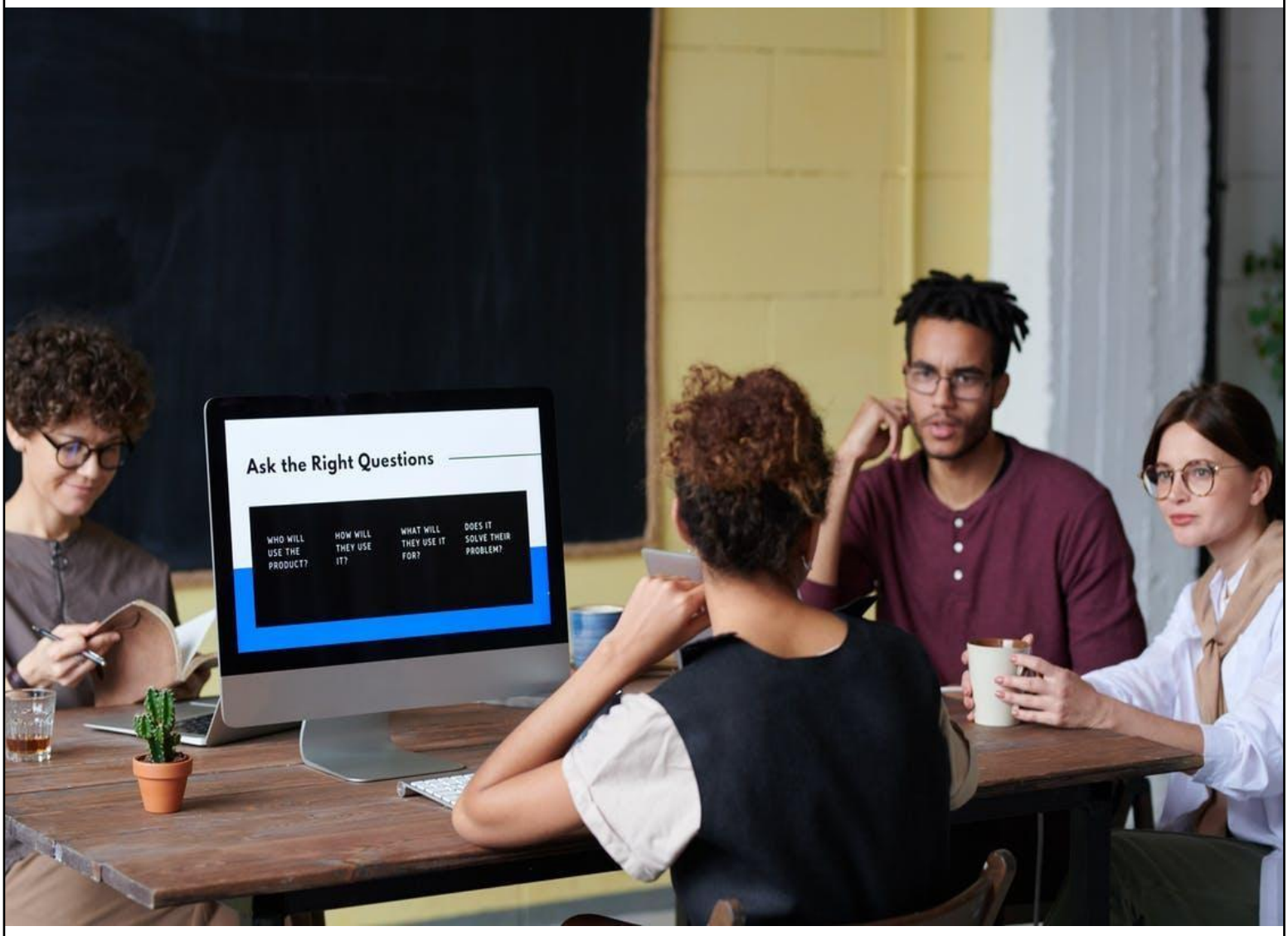
- Lean Techniques
- Cycle Time Reduction
- The Theory Of Constraints



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4. 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
- Analyze Customer Requirements
- 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
- 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

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4. DEFINE

- Analyze Customer Requirements- Pareto Diagram
- Pareto Chart --- An example
- Pareto Chart — Interpretation
- 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
- Agenda
- Problem Statement
- Process Decision Program Chart (PDPC)
- Activity Network Diagram
- Activity Network Diagram
- Defect Per Unit (DPU)
- Rolled Throughput Yield (RTY)
- Rolled Throughput Yield - An Example
- Team Tools - Multi - voting
- Team Tools - Brainstorming
- Team Tools - Nominal Group Technique
- Affinity Diagrams
- Example: Brainstorming session
- Tree Diagrams
- Prioritization Matrices
- Prioritization Matrices - Example
- Process Decision Program Chart (PDPC)

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4. DEFINE

- Costof Poor Quality (COPQ)
- Defect Per Million Opportunities
- Process Capability Indices
- Process Capability Indices - Example
- Failure Modes and Effects Analysis
- Risk Priority Number (RPN) & Scale Criteria
- Occurrence
- Detection
- Example Of FMEA & RPN
- Team Stages
- Team Tools - Multi -voting
- Group Challenges
- Six Sigma Teams and Other Responsibilities
- Communication Techniques

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5. MEASURE

- Agenda
- 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
- Descriptive Statistics-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
- Normal Probability Plots
- Discrete Probability Distribution
- Binomial Distribution
- Binomial Distribution - Concepts
- Defectives and Defects
- Poisson Distribution

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5. MEASURE

- Central Limit Theorem: Graphical Central Limit Theorem and Sampling Distribution of the Mean Basic Probability Concepts
- Basic Properties of Probabilities
- Probabilities: Example 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
- Poisson Distribution - Characteristics
- Poisson Distribution-An Example
- Continuous Distribution - Normal Distribution
- Normal Distribution - Characteristics
- Long Term v/s Short Term
- Z-table Usage
- Normal Distribution, cont..
- Chi Square Distribution
- Chi Square Test- Example
- t - Distribution
- f - Distribution: Characteristics
- Measurement System Analysis
- Objective of Measurement
- System Analysis
- Measurement System Analysis
- Sources of Variation

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5. MEASURE

- Gage Repeatability and Reproducibility
- Component of GRR Study
- Key Concepts
- Measurement Resolution
- Repeatability and Reproducibility
- Data Collection
- GAGE RR Template
- GAGE RR Results Summary
- GAGE RR Interpretation
  Process Stability Studies
- Process Capability Studies
- Process Performances vs Specification
- Process Performance Indices
- Short-term vs. Long-term capability
- Assumptions and Convention - Process Variations
- Stability, Capability, Spread and Defects Summary
- Cpk versus Cp Comparison
- Understanding Process Variations - Complaint Resolution Time Hours
- Understanding Process Variations
- Effect of Mean Shift
- Process Capability for attributes data
- Understanding Process Variations - Quality Control Department

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6. ANALYZE

- Agenda
- Causes for Variations in X
- Causes of Variation– Examples
- Analysis
- Create Multi-Vari Chart
- Correlation Levels
- Regression
- Key Concepts
- Simple Linear Regression (SLR)
- Least Squares Method in SLR
- 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
- 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 Assumptions
- F-Test Interpretations
- 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 -Example
- Using Minitab for ANOVA ANOVA using Excel Interpreting Minitab Results Chi - Square Test
- Hypothesis Tests - Summary points

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6. ANALYZE

- 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

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7. IMPROVE

- Agenda
- Introduction to Improve &Control
- Piloting
- Design of Experiments - An Introduction
- 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
- Full Factorial Experiment-Example
- Main Effect
- Interaction Effect
- Design of Experiments - Runs
- Design of Experiments - Which Experimental Method?

Objectives & Benefits of SPC

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8. CONTROL

- Basics of Control Charts
- Setting the Control Limits
- Purpose of Control Limits
- Most Common Rules for Control Chart Analysis
- Choosing an Appropriate Control Chart -Continuous Data
- Choosing an Appropriate Control Chart - Discrete Data
- Xbar Chart Principles
- Defining the Xbar-R UCL and LCL
- Xbar-R and Subgroup Data - Example
- Constructing/Analyzing an Xbar-R Chart Graph –Example
- I-MR Chart Principles
- I-MR and Individual Data – Example
- Constructing an I-MR Chart Graph –Example
- Control Charts for Attribute Data
- np-chart Principles
- np-charts and Uniform Subgroup Size -Example
- Constructing/Analyzing an np-chart Graph-Example
- p-chart Principles
- p-charts and Varying Subgroup Size -Example
- Constructing/Analyzing a p-chart Graph -Example c-Chart Principles

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8. CONTROL

- c-Chart Subgroups - Example
- Constructing/Analyzing
- ap-chart Graph -Example
- u-Chart Principles
- u-Chart Subgroups
- Constructing a u-Chart Graph
- New Process Capability
- Measurement System Reanalysis
- What is a Control Plan?
- Control Plan Strategy
- What to Control?
- Identifying KPIVs
- Control Plan Tools
- Developing a Control Plan
- Choosing the Right Level of Control
- Example of Transactional Control Plan
- Process Step
- Characteristic/Parameter
- Specification/Requirement
- Sample Size - Frequency - Who Measures
- Where Recorded?
- Decision Rule/Corrective Action
- Reference Number

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8. CONTROL

- Sample Manufacturing Control Plan
- Summary - Control Phase
- Key Objectives and Tasks

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LSSGB- Eligibility Requirements

There are no pre-requisites for attending the course or to take the IASSC Certified Lean Six Sigma Green Belt Exam™. IASSC™ Certification Exams are professionally developed to assess a person's knowledge as it relates to the subjects defined in the IASSC Bodies of Knowledge™.

Exam Fees
IASSC Certified Lean Six Sigma Green Belt™ (ICGB™)

The cost for the IASSC Certified Green Belt Exam is $295 USD.

LSSGB- Exam Format

The IASSC Certified Lean Six Sigma Green Belt Exam™ is a 100 question, closed book, proctored exam with a 3 hour allotted time. Some forms of this exam may also include up to an additional 10 non-graded questions.* The Exam contains approximately 20 multiple-choice and true/false questions from each major section of the IASSC Lean Six Sigma Green Belt Body of Knowledge.

Source: IASSC FAQs

LSSGB - Target Audience

Our Lean Six Sigma Certification Training course is targeted towards professionals in the field of Quality Management, however there are no pre-requisites to either take this training course or to appear for the IASSC Certified Lean Six Sigma Green Belt Exam™.

The course is suitable for:

- Quality Managers
- Quality System Managers
- Quality Engineers
- Quality Supervisors
- Quality Analysts
- Quality Auditors

About PanelcsCourses

- PanelcsCourses is a leading training provider, helping professionals across industries and sectors develop new expertise and bridge their skill gap for recognition and growth in the global corporate world. Developed with the intention of delivering high value training through innovative and practical approaches, PanelcsCourses offers a wide range of services in training, learning and development in the fields of technology and management.

- The founders of the company are zealous young entrepreneurs, who were motivated by the need to fill a niche in the IT Training industry for professionals and they are aided in their goal by industry experts who conduct the workshops; igniting minds and motivating professionals to face on-the-job challenges

- PanelcsCourses is an professional certification training provider catering its services globally across countries including USA , UK, CANADA, Australia, ,India, Middle East, Netherlands, Germany, France etc.

- With over 150 consultants and trainers, we have one of the largest pool of in-house experts in the industry. The training content, course material, and training methodology are developed by in-house subject matter experts and accredited by global certifying authorities to ensure the quality training experience.

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