



COURSE OVERVIEW

Lean Six Sigma is a management philosophy which uses data and statistical tools to optimize business processes and create robust improvement environment. Being used initially by big companies, Lean Six Sigma applies instruments and techniques with the aim of eliminating defects and reducing the process variation.

Lean Six Sigma uses the analogy of belt colors (often associated with martial arts) to designate competence in applying lean six sigma tools to problem solving and process improvement. A Green Belt possess skills and knowledge necessary to demonstrate leadership, identify, develop, and execute small-scale Lean Six Sigma projects using the DMAIC problem solving methodology within an organization.

The Lean Six Sigma Green Belt course is specially designed to provide practical exposure to the participants with practical business improvement projects assigned to them by their management sponsor along with hands-on learning experience with Minitab statistical software so that they are beneficial in their companies from practical points of views and can build the company to world-class level. The body of knowledge of this course is compatible to the one defined by the American Society of Quality – ASQ®.

LEARNING OUTCOMES

Upon successful completion of this course, participants will be able to:

- ✓ GAIN insight into five-step DMAIC process and the use of the tools within each phase
- ✓ IDENTIFY eight types of lean waste
- ✓ RELATE Lean Six Sigma concepts to the overall business mission and objectives
- ✓ UNDERSTAND the Lean Six Sigma tools a Green Belt would be expected to use when on a project team
- ✓ BUILD a foundation for breakthrough performance
- ✓ FUNCTION as the steppingstone towards Black Belt Certification

COURSE CONTENT

The body of knowledge of this course comprise of following topics:

- Basics of Quality
- Introduction to Lean & Six Sigma
- Lean Manufacturing Fundamentals
- Eight Deadly Lean Wastes
- Six Sigma Roles & Responsibilities
- Understanding of DMAIC Methodology & Tools
- Case Studies & Success Stories
- Individual & Team Exercises
- Quizzes & Mock Exam
- Lean Six Sigma Green Belt Project Discussion

Six Sigma & Lean Tools Covered (Phase-Wise):

Define	Measure	Analyze	Improve	Control
<ul style="list-style-type: none"> •Project Selection & Prioritization •Project Charter •Voice of Customer •Critical-To-Quality (CTQ) Tree •SIPOC: High Level Process Map •As-Is Process Map •Six Sigma Team Dynamics & Management 	<ul style="list-style-type: none"> •Introduction to Minitab •Data Collection Plan •Descriptive Statistics •Graphical Analysis •DPMO Calculations and Baseline Sigma •Process Capability Studies •Pareto Chart •X-Y Matrix •Cause & Effect Diagram 	<ul style="list-style-type: none"> •5 Whys Analysis •Inferential Statistics •Introduction to Hypothesis Testing •Hypothesis Tests •Analysis of Variance (ANOVA) •Correlation Analysis •Scatter Plot •Regression Analysis 	<ul style="list-style-type: none"> Basic Design of Experiment (DOE) •Validation Solutions •To-Be Process Map •Revised DPMO & Sigma Calculations •Lean Tools: <ul style="list-style-type: none"> ○ Kaizen ○ Gemba ○ Poke-Yoke ○ 5S: Industrial Housekeeping 	<ul style="list-style-type: none"> •Basics of Statistical Process Control •Attribute & Variable Control Charts •Control Plan •Standard Work

LEAN SIX SIGMA GREEN BELT PROJECT



The participants are required to work on real life projects assigned to them by their management sponsor from the organizations in which they are working. The projects will be of a practical nature and should be completed within the stipulated timeframe. A comprehensive Lean Six Sigma Green Belt Project Report is required to be submitted in accordance with the laid down criteria, format, and course coverage.

COURSE DURATION

Certified Lean Six Sigma Green Belt is a five-weeks online course conducted on Friday and Saturday and a take-home project to be submitted at the end of course. The distribution of days is as follows:

- Day 1-4: Phase I – Define & Measure
- Day 5-8: Phase II – Analyze & Improve
- Day 9-10: Phase III – Control

Project Submission: One month after completion of Phase III

PRE-REQUISITES

Participants are expected to have a knowledge and understanding of basic statistics and fundamentals of quality management system.

WHO IS THIS COURSE FOR?



This course is designed for individuals from diverse organizational functions - Quality, Engineering, HSE, Production, Finance, Healthcare, Aviation, Logistics, Sales, Security who are interested in understanding the concepts, tools, and methodologies of Lean and Six Sigma and wants to ensure a long-term continuous improvement culture and looking to get most out of their career.

Participants are normally process owners or leaders from service or product-based industry and are well versed in technical aspects of their jobs and have worked on project teams with sound knowledge of statistics and quality tools.

AWARD OF CERTIFICATION



Participants will receive internationally recognized Lean Six Sigma Green Belt Certification from SQI International, Singapore upon successful completion of course, as well as qualifying the online exam and Lean Six Sigma Green Belt project.

ABOUT OUR TRAINERS

Internationally experienced and qualified Lean Six Sigma Master Black Belts. All the trainers are approved tutors by SQII and have worked on number of Six Sigma and Operational Excellence Projects for multifarious companies, having hands-on experience in the field of QA, QMS, Process Excellence, Business Process Management and familiar with the industrial environment.

ABOUT PIQC

Established in 1991 by a group of dedicated quality professionals, PIQC Institute of Quality has, over the past three decades, earned national and international recognition as Pakistan's leading and most credible institution for professional development in the field of Quality, Operational Excellence, Lean Six Sigma, and related disciplines, continuing its mission to build excellence across industries.

WHY TRAIN WITH PIQC ?

With a proven track record of serving 500+ companies and training 50,000+ professionals worldwide, we deliver impactful corporate training, and consultancy solutions across diverse areas such as Quality Control, Quality Assurance, Total Quality Management (TQM), Lean Six Sigma, Total Productive Maintenance, HSE, HR Management, Project Management, and Healthcare Quality, to name a few.

OUR LEAN SIX SIGMA EXPERIENCE

Since **2005**, PIQC Institute of Quality is the pioneer and most authentic source for International Lean Six Sigma certifications and training programs in Pakistan, including Lean Six Sigma Yellow Belt (LSSYB®), Lean Six Sigma Green Belt (LSSGB®), Lean Six Sigma Black Belt (LSSBB®) and Lean Six Sigma Champion (LSSC®).



For **Lean Six Sigma** Certifications, PIQC is the preferred choice of notable companies such as:



COURSE FEES:

For course fees, call us via provided details.

Discount on early bird registration, PIQC Alumni or Group nominations from the same organization.

Fee includes:

- ✓ Course & Reference Material, Tools and Templates
- ✓ LSSGB International Exam Fees
- ✓ SQI International Certified 'Certificate of Achievement'
- ✓ Business Networking Opportunity
- ✓ Post-Training Career Counselling Services

SCAN THE QR CODE FOR REGISTRATION AND DETAILS OR REACH OUT TO US AT:

PIQC Institute of Quality | Karachi Office

- 📍 C-5, Block -17, Gulshan-e-Iqbal, Karachi, Pakistan.
- 📞 +92 333 2163620 | +92 315 0027826 | +92 21 34979449
- ✉ infokhi@piqc.edu.pk | ikram@piqc.edu.pk
- 🌐 www.piqc.edu.pk

