Certified Six Sigma Professionals

International Certification Courses in Six Sigma Black Belt

Internationally Licensed Course for Quality Managers, Engineers & Professionals, Process Improvement Engineers
Introduction

Six Sigma is an emerging tool of Quality Management with extensive power for improving performance of products, processes and systems of organizations. For organizations looking for breakthrough improvement in their organizations cannot ignore this program. Unlike, ISO 9000 where the focus is on standardization, Six Sigma builds many management teams in organizations who are developed with exhaustive problem solving and analytical tools, statistical tools, process improvement tools, and process control tools. Creating these unique capabilities, overall enterprise improvement methodology is deployed in organizations to reduce product or service failure rates to near zero levels. Utilizing a disciplined, data-driven approach, Six Sigma black belt practitioners collect and use various data like customer feedback, product inspection results, process parameters, key performance indicators and their long term trends, supplier performance results in the supply chain etc. to monitor, control, and improve operational performance by eliminating and preventing defects in products / and associated processes, including management, service delivery, design, production and customer satisfaction.

Six Sigma Black Belt International Certification and Training provides you with a thorough knowledge, strategies, tools, and approaches of Six Sigma programs (including supporting computer software hands on skills advance statistical analysis on special computer software). Successful completion of this course will ensure a thorough professional in the field of Quality Management, which is not only a necessary body of knowledge for any Quality Manager, but equally important for Production, Operations, Supply Chain and Factory Managers or Managers of Service organizations, like Banks, Hospitals, Airlines, etc.

Who is Six Sigma Black Belt

Six Sigma Black Belt is just a nomenclature used in Six Sigma programs which is an advance program in Total Quality Management or Process Improvement. Introductory level training is known as ‘Six Sigma Yellow Belt’; middle level is called ‘Six Sigma Green Belt’; while the advance level is called ‘Six Sigma Black Belt’. There is no need to do these courses step by step. In case of six sigma black belt, there is no need to do other levels.

Gain Advance Knowledge and Practical Skills through Real Life Projects

This is one of the most advanced courses in Quality and includes a large number of Quality Tools and approaches. The course is specially designed to provide practical exposure to participants with practical projects and hands on experiences on advance statistical software packages so that they are useful in their companies from practical points of views and can actually build the company to the world-class level.
Certified Six Sigma Black Belt

Duration/ Timings
Six Sigma Black Belt is a four months course spread over three months and a take home project to be submitted in the 4th month. The distribution of days is as follows:

• **Phase I:** Five days classes with take home assignments
• **Phase II:** Five days classes with take home assignments
• **Phase III:** Five days classes with take home assignments
• **Project submission after one month of Phase III**

Training timings are from 9:30 am to 5:30 pm on the designated Phase I-III.

Course Instructors
Internationally qualified and experienced Six Sigma Black Belts. All course instructors are approved course tutors by Singapore Quality Institute International and have worked with large number of Six Sigma projects in companies.

Six Sigma Black Belt Body of Knowledge and Topics
The body of knowledge of this course compatible to the one defined by the American Society of Quality – ASQ ®. The instructors and the teaching methodology is also ensured to the highest level. The following is the guidelines of the topics which will be covered in the course.

**PHASE I**

**Introduction and Foundation:** Business Process Management; Process Mapping; Standardization, Innovation and Improvement; Overview of Six Sigma; Six Sigma Methodologies and DMAIC Process; Six Sigma Metrics, KPI's and CTQs; How to Setup SS in organizations; Establishing Six Sigma Infrastructure and Teams Requirements (Six Sigma Champions, Black Belt, Green Belts, etc).

**Starting Six Sigma Projects:** Identification of organizational strategic Quality issues related to products, processes and customer satisfaction; Prioritizing and aligning Six Sigma projects with company goals; Forming Six Sigma Teams and studying team dynamics; Cause & Effect Matrix/Diagrams for project selection; Developing Project Proposals and Charters, Integrating Quality with costs using Cost of Quality

**Initial Study and Measurements:** Surveys and Data Collection related to history of Quality issues; Learning relevant Software for data analysis; Understanding the depth of Descriptive Statistics with plenty of exercises on Statistical Software; Identifying nature of data if Normal or Non-Normal for using suitable statistical tool; Sampling Techniques and Methods; Measurement System Analysis (MSA) and Gage Repeatability & Reproducibility (GRR); Calculating Process Capability Index in production and for suppliers; Take home exercises on real life six sigma projects from participants companies and related practical issues.
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PHASE II
Analyzing Corporate Issues in depth: How to identify causes using Cause and Effective Diagrams, Pareto Diagrams, Failure Mode and Effect Diagrams (FMEA); Waste Analysis; Studying the types of probability distributions of the Quality data for deep study of process phenomenon through data; Validating reasons through Inferential Statistics using Test of Hypothesis, Parametric (t-test, ANOVA) and Non-Parametric tests (Mood Median/Kruskal); Chi-Square Test; Types of Sampling Errors and how to identify appropriate sample size; Correlation and Regression Analysis between outcomes and factors affecting Quality; Take home exercises on real life six sigma projects from participants companies and related practical issues.

PHASE III
Identifying and Validating Solutions to Corporate Issues: Identifying probable solutions to deep rooted quality issues; conducting experiments using Design of Experiments; designing, planning experiments on trials; one/two and full factorial experiments; cycle time reduction; Kaizen; and Simulation.
Controlling and Standardizing Solutions: Detailed study of Statistical Process Control and Statistical Control Charts; Control chart analysis and interpretations; developing Control Plans and Tables; Standardization of building SOPs.

Valuable for
Quality Managers, Engineers & Professionals, Process Improvement Engineers

Duration:
18 days spread over 3 months with classes on every Saturday from 09:30 am to 05:00 pm
PIQC - Center for Excellence

Leading Institute in Pakistan providing academic programs, professional diplomas & certifications, short courses and corporate development in Quality Control (QC), Quality Assurance (QA) and Total Quality Management (TQM), Human Resource Management (HRM) and Health, Safety and Environment (HSE). Celebrating the 25th year of its establishment, PIQC vision is to see Pakistan a hallmark of Quality in the national and global environments. With its leadership and team of specialists, it has provided academic education and professional courses to more than 40,000 students and professionals. It is the pioneer and most authentic source for running International Six Sigma and Lean Manufacturing programs, including Six Sigma Yellow Belt, Six Sigma Green Belt and Six Sigma Black Belt in Pakistan.

PIQC has professional collaborations and linkages with various local and foreign organizations including Hamdard University, Superior University, NED University of Engineering and Technology, IQCS Certification, Singapore Quality Institute International (SQII), American Society for Quality (ASQ), and Quality and Productively Society of Pakistan (QPSP)

Degree Programs
- Masters & MPhil in: Quality Management
- Human Resource Management
- Industrial Management
- EHS Management

Professional Diploma
- PIQC Diplomas/ Certifications in Quality Management
- Project Management
- Health Care Quality Management
- HSE Management
- HRM Management
- Supply Chain Management
- Labor Laws and IR Management

International Certifications
- Internationally Recognized Certifications
- IRCA (UK) Accredited Certified ISO 9000 Lead Auditor
- Certified Six Sigma Green Belt & Black Belt

Corporate Courses
- Nation-wide seminars & workshops on Total Quality Management, Six Sigma, ISO 9000 Quality Assurance in Manufacturing, Services, Education, Banks and Healthcare, Total Productive Maintenance

International Conventions
- Pakistan’s 14th International Convention on Quality Improvement
- ICQI 2014 Nov 14-15 Lahore
  Theme Quality Standards & Tools

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