LSSBB Certification Classroom Course and Exam

Delivery Method : Classroom

Duration : 5 days

Course Description

Lean Six Sigma Black Belt course focuses on providing students with comprehensive understanding of both the complementary domains of Lean and Six Sigma. It covers tools and techniques useful to improve the production process, reduce waste and minimize defects in the end product with a greater focus on the practical implementation of these tool and techniques in the organization. The participants will definitely be able to use the knowledge gained in this course in leading various critical projects in their respective organizations.

Course Objective

This course aims to -
- provide comprehensive knowledge to participants about the tool and techniques, advantages, and challenges of the Six Sigma and Lean methodologies.
- Teach students both quantitative and qualitative methods from the complementary domains of Lean and Six Sigma.
- provide knowledge to students to form and effectively lead a six sigma project team.
- provide knowledge to students to apply DMAIC (Define, Measure, Analyze, Improve, and Control) and various six sigma tools in process and quality improvement.
- Provide knowledge of Kaizen projects
- to equip students with knowledge to communicate using Six Sigma and Lean concepts
- equip students with knowledge to avoid pitfalls in implementing six sigma.

Course Outcome

- Participants will be able to relate Six Sigma and Lean concepts to the overall business mission and objectives
- Participants will be able to apply concepts to business issues and transition projects from phase to phase.
- Participants will develop superior problem solving skills that can be immediately applied in real world projects.
- Participants will be equipped with the knowledge needed for production process improvement in their organizations and help their organizations adopt right approach.
- Participants will be able to apply Lean concepts such as 5S, waste reduction, process mapping, value stream mapping and mistake proofing etc. in their workplace
- Participants will be able to define, present and manage improvement projects

Audience Profile

- This course is for employees and organizations requiring a standardized approach to problem solving for the purpose of continuous improvement. This would include team leaders, supervisors, associates, Quality Assurance Engineers, Project Managers, Software Professionals, Practitioners, Quality Assurance team members, Working Executives and Senior Management that will dedicate a small portion of their time applying the DMAIC and Kaizen tools to their natural work area.
- People who want to lead improvement projects, typically in a full-time role
- Individuals seeking to significantly improve business processes
- Functional managers seeking to bring significant business results to their organizations.
- Managers and employees who want to get certified as Black Belt in Six Sigma.
- Any other professional members who are doing research, innovations or consulting in process improvement practices.

LSSBB Certification Classroom Course and Exam

Delivery Method : Classroom

Duration : 5 days

Course Methodology

- A highly engaging and interactive course that ensures better internalization of six sigma and lean concepts and principles.
- Work through the course rather than just listening for higher retention of concepts and theory.
- Group exercises that demonstrate and bring to life the concepts being taught.
- Practical implementation issues are discussed with relevant six sigma and lean tools and techniques.
- Integrated role play with all the six sigma concepts that make the participants work through an entire project.
- Work through multiple case studies to test the understanding of the method.
- Learn to carry out analysis with the help of globally used Minitab software.

TAKEAWAYS

- Workbook
- Case study booklet
- Role play documents
- Gifts and supplies
- PMI approved PDUs
- Lean Six Sigma Black Belt Online course covering comprehensive six sigma concepts
- Lean Six Sigma Black Belt Certificate after completing the online course and exam

LSSBB Certification Classroom Course and Exam

Delivery Method : Classroom

Duration : 5 days

Course Outline

Introduction to Six Sigma

- A brief history of Quality
- What is Quality (Definitions) and service or product
- Quality Gurus & their contribution to Quality
- Enterprise wide View
- Leadership
- Six Sigma Roles and Responsibilities
- Team Formation
- Team Facilitation
- Team Dynamics
- Time Management For Teams
- Team Decision making Tools
- Management and Planning Tools
- Team Performance Evaluation And Rewards
- Overview of DMAIC

Six Sigma Methodology – Define

- Important Stakeholders
- Impact On Stakeholders
- Critical To Requirements
- Benchmarking
- Business performance measures
- Financial measures
- VOC
- Kano's Customer Satisfaction Levels
- Juran's Customer Needs
- Market Research
- CTQ Flowdown
- QFD
- Performance Metrics
- Project Charter
- Charter Negotiation
- Project management plan and Baselines
- Project Tracking

Six Sigma Methodology – Measure

- Processes, Process characteristics, process flow metrics, inputs and outputs
- Process maps and Flow chart
- SIPOC
- Data Type & Measurement scale
- Data Collection
- Sampling strategies
- Fishbone Diagram
- Relational Matrices or Prioritization Matrix
- Basic Statistics
- Analytical Statistics
- Gauge R & R
- Process Capability Analysis

Six Sigma Methodology – Analyze

- Correlation and Regression Analysis
- Testing of Hypothesis
- FMEA
- Gap Analysis
- The Five Whys
- Pareto Diagram
- Tree Diagram
- Non value added activities
- Cost of poor Quality (COPQ)

LSSBB Certification Classroom Course and Exam

Delivery Method : Classroom

Duration : 3 days

Six Sigma Methodology – Improve

- DOE
- Poka-yoke
- 5S
- Kanban
- Standard Operations
- Operator work instructions
- Cycle time reduction
- Continuous Flow Manufacturing
- SMED
- Kaizen and Kaizen Blitz
- Theory of Constraints (TOC)
- Risk analysis

Six Sigma Methodology – Control

- Statistical Process Control
- Other Control Tools
- Maintain Controls
- Sustaining Improvements

DFSS

- DFSS

More on Lean

- A Value Stream Map
- Lean is Speed
- Total Supply Chain
- Lean Six Sigma Logistics

Case Study 1

- Case Study 1 Part 1
- Case Study 1 Part 2

Case Study 2

- Case Study 2 Part 1
- Case Study 2 Part 2