Brochure

LEAN SIX SIGMA BLACK BELT

Lean Six Sigma Black Belt provides a detailed information on the Lean Six Sigma fundamentals, how to drive & mentor result oriented Lean Six Sigma projects, Industry specific case studies and in-depth training on Statistical software.	
Duration	54 Value Added Hours
Objective	To enable students with necessary knowledge, methodologies & skills required to drive & mentor DMAIC Lean Six Sigma Black Belt Projects in their respective industry.
Who Should Attend?	• Professionals with 4+ years of experience • Any Professionals serious to accelerate their corporate career • Anyone who wants to consider Lean Six Sigma their career • Certified Green Belts looking to equip them to be able to drive projects
Project Assistance	Free Assistance from an expert from your respective discipline
Essentials	Certified Green Belts with minimum of 1 year as Green Belts or Professionals with 4+ years of Industry experience
Course Program	**LEAN:** • Introduction to Lean • What is Lean & Its Applications ? • Types of Waste • **Value Stream Mapping (Simulation to understand)** • Value Added & Non- Value added • Takt Time & Process Efficiency • How to identify Distinct Types of Waste • **Identify waste (Simulation to understand)** • Introduction to Kaizen • **Value Stream Design(Simulation to understand)** • Value Stream Planning • Lean Tools / Methodologies • How to implement Lean Tools / Methodologies (Industry specific case studies)? **DEFINE:** • What is Six Sigma? • History & future/potential of LSS • Why LSS & Application of LSS? • How LSS is different? • **Change Management(Simulation)** • Dealing with Change management • Facilitator & Role of a Facilitator • Leadership • DMAIC / DFSS • **Balanced scorecard**

- Voice of Customer & Business
- Develop CTQ's, CTB's, CTQ tree
- **Quality Functional Deployment**
- **Kano Analysis**
- Identify Business Problem
- Identify Problem & project charter
- Team identification, roles & timelines
- **Goal statement & elevator speech**
- SIPOC, project boundaries
- Map Business Process
- Process Mapping & Value Stream Mapping (Recap)
- Define Phase sign off & toll gate

MEASURE:

- Define Process and Output Metrics
- Develop Operational Definitions
- Data Collection Plan
- **Sampling & different types of Samples (Simulation)**
- Regional sub grouping
- Variation & source of variation
- Measurement System Analysis
- Accuracy & Precision
- Repeatability & Reproducibility
- Special Vs common cause
- Basic statistics & probability
- **Variance (Simulation)**
- Introduction to Minitab
- Validate Measurement System
- Different data types Performance/Capability
- Sigma level for overall & sub grouped data
- Baselining & goal validation
- Measure Phase sign off & toll gate
- Graphical plots like Histogram/ Dot plot, Pareto Chart, Individual value plot, Scatter diagram

ANALYZE:

- Identify potential causes (X's)
- Brainstorming
- Cause & effect
- **FMEA (Simulation)**
- Value stream mapping (Recap)
- Different types of wastes
- Prioritize Critical X's
- Concept of P value
- Conduct Root Cause analysis
- Normal & Non Normal data
- Hypothesis testing for normal, non normal & discrete data
- Data Analysis Based on Data Type
- Correlation & Regression
- 1 Sample T, 2 Sample T, Anova

	• Moods Median • Logistic Regression Analysis • 1- Proportion, 2- Proportion & • Chi Square Test • Identify Critical X's • Validate Critical X's • Arrive Y=f(x) • Quantify the Opportunity • Prioritize Root Causes • **Design of Experiments with simulation example** • Analyze Phase sign off & toll gate **IMPROVE:** • Develop Potential Solutions • **Brainstorming** • **SCAMPER** • **doHow Gamification** • **Six Thinking Hats** • Response Optimizer • Solution prioritization matrix • Mistake Proofing & Different types pf mistake proofing • Solution risk analysis • Optimize Solution • Value stream Design • Implementation Plan • Process Design • Stakeholder and impact analysis • Develop Pilot Plan & execute • Implement solutions • Design of Experiments full factorial & fractional factorial experiments • Improve Phase Sign off • Lean solutions like SMED, JIT, Kanban, Total Productive Maintenance, single piece flow, Hijunka, Lean line designs, Line balancing ((Recap) **CONTROL:** • Introduction to Control Phase • Process Risk Analysis • Different types of control • What is SPC • Control charts & types • Develop SOP, control charts • Process Control System • Monitor & Standardize Process • Identify opportunities to horizontally replicate • Calculate Financial Benefits • Audits & Frequencies • Project sign off • Control Phase Sign off

	• **Case Study 1** • **Case Study 2 with Minitab Practice**
Trainers Profile	An expert with a minimum of 10 years of experience in Lean Six Sigma & led minimum 50 Lean Six Sigma Projects
Course Fee Includes	• Six Days of Simulation Enabled coaching • One Hard copy of Course Material with 5 case studies • doHow Gamification • Five Sample Question papers with solutions • Examination & Certification Cost • Support in Executing Project for a period of 24 Months • Project evaluation by experts from your respective domain • Special Invite to attend XergY's students'GB & BB project presentations • Refresher trainings at minimal charges • Mentorship & Assistance to accelerate your corporate career • 100% Placement Assistance • Refreshment at the training venue
Certification Procedure	• Attend 6 days training • Successful completion of Black Belt Certification Exam conducted by TUV with 60% marks (at the end of 6th day) • Submission of project (within 8 months from the date of completion of the Course)