



**LEAN SIX SIGMA YELLOW BELT**

Lean Six Sigma Yellow Belt provides a detailed information on the Lean Six Sigma fundamentals and ways to apply Lean Six Sigma to specific industry to achieve desired results	
<b>Duration</b>	36 Value Added Hours
<b>Objective</b>	To enable students with necessary knowledge, methodologies & skills required to drive or get involved in DMAIC Lean Six Sigma Projects at their respective work place.
<b>Who Should Attend?</b>	<ul style="list-style-type: none"> <li>• Executives/ Operators</li> <li>• Graduates in any discipline</li> <li>• Anybody with formal Industrial training</li> </ul>
<b>Essentials</b>	Graduates / Post graduates from any discipline
<b>Course Program</b>	<p><b>LEAN:</b></p> <ul style="list-style-type: none"> <li>• Introduction to Lean</li> <li>• What is Lean &amp; Its Applications?</li> <li>• Types of Waste</li> <li>• <b>Value Stream Mapping (Simulation to understand)</b></li> <li>• Value Added &amp; Non- Value added</li> <li>• Takt Time &amp; Process Efficiency</li> <li>• How to identify Distinct Types of Waste</li> <li>• <b>Identify waste (Simulation to understand)</b></li> <li>• Introduction to Kaizen</li> <li>• <b>Value Stream Design(Simulation to understand)</b></li> <li>• Value Stream Planning</li> <li>• Lean Tools / Methodologies</li> <li>• How to implement Lean Tools / Methodologies (Industry specific case studies)?</li> </ul> <p><b>DEFINE :</b></p> <ul style="list-style-type: none"> <li>• What is Six Sigma ?</li> <li>• History &amp; future/potential of LSS</li> <li>• Why LSS &amp; Application of LSS?</li> <li>• How LSS is different?</li> <li>• <b>Change Management(Simulation)</b></li> <li>• Dealing with Change management</li> <li>• DMAIC / DFSS</li> <li>• <b>Balanced scorecard</b></li> <li>• Voice of Customer &amp; Business</li> <li>• Develop CTQ's, CTB's, CTQ tree</li> <li>• <b>Quality Functional Deployment (Simulation)</b></li> <li>• <b>Kano Analysis</b></li> <li>• Identify Business Problem</li> <li>• Identify Problem &amp; project charter</li> <li>• Team identification, roles &amp; timelines</li> <li>• <b>Goal statement &amp; elevator speech</b></li> </ul>

- 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
- Baselineing & 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
- 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
- **Introduction to Design of Experiments**

	<ul style="list-style-type: none"> <li>• Analyze Phase sign off &amp; toll gate</li> </ul> <p><b>IMPROVE:</b></p> <ul style="list-style-type: none"> <li>• Develop Potential Solutions</li> <li>• <b>Brainstorming</b></li> <li>• <b>SCAMPER</b></li> <li>• <b>doHow Gamification</b></li> <li>• <b>Six Thinking Hats</b></li> <li>• Mistake Proofing &amp; Different types pf mistake proofing</li> <li>• Solution prioritization matrix</li> <li>• Solution risk analysis</li> <li>• Implementation Plan</li> <li>• Stakeholder and impact analysis</li> <li>• Develop Pilot Plan &amp; execute Optimize Solution</li> <li>• Implement solutions</li> <li>• Improve Phase Sign off</li> <li>• Lean solutions like SMED, JIT, Kanban, Total Productive Maintenance, single piece flow</li> </ul> <p><b>CONTROL:</b></p> <ul style="list-style-type: none"> <li>• Introduction to Control Phase</li> <li>• Process Risk Analysis</li> <li>• Different types of control</li> <li>• What is SPC?</li> <li>• Control charts &amp; types</li> <li>• Develop SOP, control charts</li> <li>• Process Control System</li> <li>• Monitor &amp; Standardize Process</li> <li>• Identify opportunities to horizontally replicate</li> <li>• Calculate Financial Benefits</li> <li>• Audits &amp; Frequencies</li> <li>• Project sign off</li> <li>• Control Phase Sign off</li> <li>• <b>Case Study 1</b></li> </ul>
<b>Trainers Profile</b>	An expert with a minimum of 10 years of experience in Lean Six Sigma & led minimum 50 Lean Six Sigma Projects
<b>Course Fee Includes</b>	<ul style="list-style-type: none"> <li>• Four Days of Simulation Enabled coaching</li> <li>• One Hard copy of Course Material with 5 case studies</li> <li>• Examination &amp; Certification Cost</li> <li>• `doHow Gamification</li> <li>• Five Sample Question papers with solutions</li> <li>• 100% Placement Assistance</li> <li>• Refreshment at the training venue</li> </ul>
<b>Certification Procedure</b>	<ul style="list-style-type: none"> <li>• Attend 4 days training</li> </ul>



## Brochure