



# LEAN SIX SIGMA GREEN BELT CERTIFICATION

## CURRICULUM

### OVERVIEW

- Overview on Quality
  - Quality Terminology
  - Lean, Six Sigma, and Lean Six Sigma
  - The Lean and Six Sigma Language
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### WHY AND WHEN ONE MUST APPLY LEAN SIX SIGMA

- Basic Quality Tools
  - 7 wastes (Self-study through pre-workshop material)
  - 5s (Housekeeping for productivity Improvement)
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### LEAN AND SIX SIGMA

- Lean Principles and Tools (Self-study)
  - Lean Six Sigma DMAIC Methodology
  - Other tools required at various stages of DMAIC
  - Case studies (Pre-workshop material)
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### DEFINE & MEASURE PHASE

- Process Mapping (As-Is Process)
- Data Attributes (Continuous Versus Discrete)
- Measurement System Analysis
- Process Performance (Cp, Cpk, Pp, Ppk)
- Calculating Process Sigma Level
- Defining Problem
- Minitab Software/JMP for Define & Measure Phase
- Measurement Phase Review
- Case studies (Pre-workshop material)

## **ANALYSE & IMPROVE PHASE**

- Value Stream Mapping
  - Test of Hypothesis
  - Verification of Root Causes
  - DoE and ANOVA as needed
  - Minitab Software/JMP for Analyse & Improve Phase
  - Improve Phase Review
  - Case studies
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## **CONTROL PHASE**

- Assessing the Results of Process Improvement
  - Statistical Process Control (SPC) Overview
  - Developing a Process Control Plan
  - Documenting the Process
  - Minitab Software for Control Phase
  - Control Phase Review
  - Case studies
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## **EXAMINATION**

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## **EVALUATION AND FEEDBACK**

## **PEDAGOGICAL APPROACH**

- Along with highly interactive theoretical teaching, the program includes case study discussions, practical sessions, question & answer sessions, and exercises
- Participants are expected to read the pre-workshop materials that will be mailed to them at least seven days in advance