



# Lean Six Sigma Yellow Belt – EngineRoom®

## Course Content and Outline

Course Estimated Hours: 27.65

### Session 1: Introduction to Lean Six Sigma (3.75 Hours)

- Introduction
- Higher Standards for Higher Performance
- Lean Six Sigma Defined
- Input Determines Output
- What's In a Name?
- The 5 Lean Principles
- The 8 Forms of Waste
- Success Stories
- The Sigma Level
- The 99.9% Problem
- DNA of a Champion
- Lean Six Sigma Framework
- DMAIC - The Improvement Process
- Lean and DMAIC
- Organizing for Success
- Working Relationships
- Introduction to EngineRoom®
- Skill Check

### Session 2: Tools to Define (7.10 Hours)

- Introduction – Define
- Project Charter Toolset
- Focus on The Customer
- Capturing The Voice Of The Customer
- Where to Go For Customer Requirements
- Affinity Diagram Toolset
- CTQC Tree Diagram Toolset
- Voice Of The Customer As Specifications
- Process Thinking
- The Source of Value
- The Source of Value: Gemba
- Process Mapping - Overview
- Process Mapping (SIPOC) Toolset
- Flow Charts
- Value-Added Flow Charts
- Spaghetti Charts
- Value Stream Mapping Toolset
- Skill Check

### Session 3: Tools to Measure (5.85 Hours)

- Introduction – Measure
- Measurement & Metrics
- Measurement as a Process
- Baseline Performance
- Calculating the Sigma Level – Toolset
- Trend Chart Toolset

### Session 3: Tools to Measure (Continued)

- Histogram Toolset
- Measuring Central Tendency
- Quantifying Process Variability
- SPC - Introduction and Background
- X and Moving Range Charts - Toolset
- Pareto Chart Toolset
- Skill Check

### Session 4: Tools to Analyze (2.85 Hours)

- Introduction – Analyze
- Cause & Effect Diagram Toolset
- 5-Why, 1-How
- Scatter Plot Toolset
- Correlation and Regression Analysis
- Skill Check

### Session 5: Tools to Improve (5.45 Hours)

- Introduction – Improve
- Brainstorming
- Benchmarking
- FMEA Toolset
- Continuous Flow Toolset
- Quick Changeover Toolset
- Replenishment Pull Overview
- Error-proofing
- Prioritizing and Selecting a Solution
- The A3 One-Page Report
- Piloting a Solution
- Skill Check

### Session 6: Tools to Control (2.65 Hours)

- Introduction – Control
- Control Charts Revisited
- 5-S Approach
- Visual Management
- Control Plan
- TPM Objectives & Benefits
- Standardized Work – Documenting Process Changes
- Skill Check
- Course Completion
- The Lean Six Sigma Journey

Updated on: 2/21/2019