





Course Outline & Module Information

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What Modules are covered?

Module 1 – INTRODUCTION

- 1. Six Sigma: Concept and History
- 2. Six Sigma: A Breakthrough Improvement
- 3. Three Sigma vs. Six Sigma
- 4. Six Sigma Roles and Responsibilities
- 5. How Six Sigma Works

Module 4 – BASIC STATISTICS

- 1. Definition Statistics
- 2. Data Types Discrete and Continuous
- 3. Data Types Differences
- 4. Normal Curve
- 5. Distribution and its Types

Module 2 – DEFINE

- 1. Team Charter
- 2. Business Case
- 3. Problem Statement
- 4. Goal Statement
- 5. Project Scope
- 6. Milestone
- 7. Resource Plan
- 8. Team Charter Format

Module 3 – MEASURE

- 1. Tools for Measure
- 2. Process Mapping Definition
- 3. Process Mapping Need and Benefits
- 4. Process Map Elements
- 5. High-level Process Map
- 6. Process/product Drill-down Tree
- 7. Data Collection Plan
- 8. Process Capability Analysis

6. Descriptive Statistics

Module 5 – ANALYZE

- 1. Tools for First Stage Histogram
- 2. Tools for First Stage Pareto Chart
- 3. Tools for First Stage Stratification
- 4. Tools for Second Stage Brainstorming
- 5. Tools for Second Stage CED
- 6. Tools for Second Stage Control Impact Matrix
- 7. Tools for Second Stage Five Why Analysis

Module 6 – IMPROVE

Identify Vital Causes – Scatter Diagram
Identify Vital Causes – Correlation Coefficient
Identify Vital Causes – Regression Analysis
Propose Solutions – Pugh Matrix

Module 7 – CONTROL

Control Plan Control Charts Control Charts – Appropriate Selection Control Chart – Types Individual and Moving Range Charts Attribute Control Charts

Module 8 – A Lean Glossary

Lean Process Improvement

- 1. Understanding Lean
- 2. The Toyota Production System
- 3. The Toyota Production System House
- 4. The Five Critical Improvement Concepts
- 5. Understanding Value with the Kano Model
- 6. Types of Waste
- 7. Creating a Lean Enterprise
- 8. Understanding Lean
- 9. The Plan, Do, Study, Act (PDSA) Cycle
- 10. Using the R-DMAIC-S Model
- 11. Lean Thinking Tools
- 12. Kaizen Events
- 13. Data Gathering and Mapping

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What Modules covered in this E-Course?

- 1) INTRODUCTION
- 2) DEFINE
- 3) MEASURE
- 4) BASIC STATISTICS
- 5) ANALYZE
- 7) IMPROVE
- 8) CONTROL
- 9) A Lean Glossary
- 10) Lean Principles and Process Improvement
- 11) Recognize the advantages of Six Sigma
- 12) List the industries where it can be applied
- 13) Explain the use of the DMAIC methodology to achieve process excellence
- 14) Describe the use of statistics in applying the DMAIC methodology
- 15) Understanding Lean
- 16) The Toyota Production System
- 17) The Toyota Production System House
- 18) The Five Critical Improvement Concepts
- 19) Understanding Value with the Kano Model
- 20) Types of Waste
- 21) Creating a Lean Enterprise
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22) Understanding Lean

23) The Plan, Do, Study, Act (PDSA) Cycle

24) Using the R-DMAIC-S Model

25) Lean Thinking Tools

26) Kaizen Events

27) Data Gathering and Mapping

