

Agilewaters Consulting

Course Content for Six Sigma Black Belt

♣ Introduction

- A brief history of Quality
- What is Quality (Definitions) and service or product
- Quality Gurus & their contribution to Quality
- Enterprise wide View
- Leadership
- Six Sigma Roles and Responsibilities
- Team Formation
- Team Facilitation
- Team Dynamics
- Time Management For Teams
- Team Decision making Tools
- Management and Planning Tools
- Team Performance Evaluation And Rewards
- Overview of DMAIC

♣ Define

- Important Stakeholders
- Impact On Stakeholders
- Critical To X Requirements
- Benchmarking
- Business performance measures
- Financial measures
- VOC
- Kano's Customer Satisfaction Levels
- Juran's customer needs
- Market research
- CTQ Flowdown
- QFD
- Performance Metrics
- Project Charter
- Charter Negotiation
- Project management plan and Baselines
- Project Tracking

♣ **Measure**

- **Processes, Process characteristics, process flow metrics, inputs and outputs**
- **Process maps and Flow chart**
- **SIPOC**
- **Data Type & Measurement scale**
- **Data Collection**
- **Sampling strategies**
- **Fishbone Diagram**
- **Relational Matrices or Prioritization Matrix**
- **Basic Statistics**
- **Analytical Statistics**
- **Gauge R & R**
- **Process Capablity Analysis**

• **Analyze**

1. **1. Correlation and Regression Analysis**
2. **2. Testing of Hypothesis**
3. **FMEA**
4. **Gap Analysis**
5. **The Five Whys**
6. **Pareto Diagram**
7. **Tree Diagram**
8. **Non-value added activities**
9. **Cost of Poor Quality (COPQ)**

• **Improve**

1. **DOE**
2. **Poka-yoke**
3. **5S**
4. **SMED**
5. **Continuous Flow Manufacturing**
6. **Kaizen**
7. **Kanban**
8. **Theory of constraints**
9. **Risk analysis**

- **Control**

1. **Statistical Process Control**
2. **Other Control Tools**
3. **Maintain Controls**
4. **Sustaining Improvements**

- **DFSS**

1. **DFSS**

- Case Study 1**

1. **1. Case Study 1 Part 1**
2. **Case Study 1 Part 2**

- Case Study 2**

1. **Case Study 2 Part 1**
2. **Case Study 2 Part 2**
3. **Case Study 2 Part 3**