AQMS CONSULTING PVT. LTD.

Feature:

The course gives an overview how to initiate six sigma in organization, includes lean tools like 5S, 8 Wastes, OEE, VSM, SMED etc, The DMAIC phases have been explained in detail with special focus on statistical competency needed. All statistical calculation including test of hypothesis are done manually as well as using Minitab. Statistical portion starts with basics and takes the participants to fairly good level as six sigma professional. Can be done by participant with not much exposure to statistics. Also, support would be provided after training to complete project by the coach.

Course Objective:

1) Enable participants to initiate six sigma journey in organization and select relevant improvement project
2) Use lean tools to get quick benefit in operation
3) Learn analytical tool required in Define, Measure, Analyse, Improve, and Control phases
4) Make participant competent with statistical concept required for analysis
5) Reduce variation and achieve six sigma level by applying DMAIC methodology

Who Should Attend?

People from operation both manufacturing and service sectors, person in quality, business excellence, process engineering, consultants, operation managers, etc.

Course Duration:

4 Days

Course Content:

Day 1 – Introduction and Lean Tools	
A. Introduction to six sigma	**B. Introduction to lean Concepts**
1) History of Six Sigma	6) The lean concept
2) Six Sigma as transformational strategy	7) The 5 Lean principles
3) Balanced Score card	8) House of Lean
4) Types of projects	9) 5S and standardization
5) Introduction to DMAIC	10) The 8 major wastes
	11) Takt Time
	12) Overall Equipment effectiveness
	13) Value stream mapping
	14) Single Minute Exchange of Dies
	15) Linkage of Lean Concepts and DMAIC

Day 2 –Define and Measure Phase

C.   Define Phase

1) Voice of customer & Voice of Voice of process
2) Project charter
3) CTQ Drill Down Tree
4) Team formation – ARMI tool
5) SIPOC
6) Estimation of Benefit
7) Gantt Chart
8) CTQ present state

D.   Measure

1) Process Map
2) Fundamental of statistics
3) DPMO, DPU and sigma level
4) Central limit theorem
5) Process capability
6) Process capability and performance
7) Measurement System analysis
8) Linearity, Bias, Stability
9) Accuracy, Precision, Discrimination, GRR for variable data
10) Effectiveness, Miss Rate, False Alarm for discrete data
11) Introduction to Minitab

Day 3 – Analysis Phase

E.   Analyse Phase

1) Cause and Effect Diagram
2) Correlation and Regression
3) Test of Hypothesis
4) Concept of P-Value
5) Z test – I sample and 2 samples
6) T test – 1 sample
7) 2 sample t test – Paired
8) 2 sample t-test unpaired
9) Concept of Chi square distribution
10) Chi Square Test for association
11) Chi square test for Goodness of Fit
12) 5 Why Analysis

Day 4 – Improve, Control and Final Test

F.   Improve Phase

1) Brainstorming
2) Action Planning
3) Action effectiveness
4) Horizontal Deployment

G.   Control Phase

1) Basic of FMEA
2) Control Plan
3) Human Error and Mistake Proofing
4) Toll Gate Review
5) Financial Benefit Calculation

H. Final Test

1) Full Marks - 100
2) Pass mark - 70%
3) Duration - 120 min

I.   Closure

1) Q & A
2) Feedback

Certification:

One six sigma DMAIC Project completion demonstrating the tools learnt.