IASSC Six Sigma Yellow Belt Study Guide

This IASSC Six Sigma Yellow Belt Study Guide lists all key concepts (and links to learn more) for the IASSC Six Sigma Yellow Belt Certification.

IASSC Universally Accepted Lean Six Sigma Body of Knowledge for Yellow Belts

(From IASSC Yellow Belt BOK.)

1.0 Define Phase

- 1.1 The Basics of Six Sigma
- 1.1.1 Meanings of Six Sigma
- 1.1.2 General History of Six Sigma & Continuous Improvement
- 1.1.3 Deliverables of a Lean Six Sigma Project
- 1.1.4 The Problem Solving Strategy Y = f(x)
- 1.1.5 Voice of the Customer, Business and Employee
- 1.1.6 Six Sigma Roles & Responsibilities
- 1.2 The Fundamentals of Six Sigma
- 1.2.1 Defining a Process
- 1.2.2 Critical to Quality Characteristics (CTQ's)
- 1.2.3 Cost of Poor Quality (COPQ)
- 1.2.4 Pareto Analysis (80:20 rule)
- 1.2.5 Basic Six Sigma Metrics
- a. including DPU, DPMO, FTY, RTY Cycle Time
- 1.3 Selecting Lean Six Sigma Projects
- 1.3.1 Building a Business Case & Project Charter
- 1.3.2 <u>Developing Project Metrics</u>
- 1.3.3 Financial Evaluation & Benefits Capture
- 1.4 The Lean Enterprise
- 1.4.1 Understanding Lean
- 1.4.2 The History of Lean
- 1.4.3 Lean & Six Sigma

1.4.4 The Seven Elements of Waste

a. Overproduction, Correction, Inventory, Motion, Overprocessing, Conveyance, Waiting.

1.4.5 **5S**

a. Straighten, Shine, Standardize, Self-Discipline, Sort

2.0 Measure Phase

- 2.1 Process Definition
- 2.1.1 Cause & Effect / Fishbone Diagrams
- 2.1.2 Process Mapping, SIPOC, Value Stream Map
- 2.1.3 X-Y Diagram
- 2.1.4 Failure Modes & Effects Analysis (FMEA)
- 2.2 Six Sigma Statistics
- 2.2.1 Basic Statistics
- 2.2.2 Descriptive Statistics
- 2.2.3 Normal Distributions & Normality
- 2.2.4 Graphical Analysis
- 2.3 Measurement System Analysis
- 2.3.1 Precision & Accuracy
- 2.3.2 Bias, Linearity & Stability
- 2.3.3 Gage Repeatability & Reproducibility
- 2.3.4 Variable & Attribute MSA
- 2.4 Process Capability
- 2.4.1 Capability Analysis
- 2.4.2 Concept of Stability
- 2.4.3 Attribute & Discrete Capability
- 2.4.4 Monitoring Techniques

3.0 Control Phase

- 3.1 Lean Controls
- 3.1.1 Control Methods for 5S
- 3.1.2 <u>Kanban</u>
- 3.1.3 Poka-Yoke (Mistake Proofing)

- 3.2 Six Sigma Control Plans
- 3.2.1 Cost Benefit Analysis
- 3.2.2 Elements of the Control Plan
- 3.2.3 Elements of the Response Plan