



Six Sigma Lean (Non-belt) Standards

Introduction

These open source standards represent the minimum required standards for credentialing the above-named process improvement methodology. To comply with *Process Improvement Credentialing Standards*, organizations must conduct testing which covers all body of knowledge elements below. Organizations must also comply with *Process Improvement Credentialing Standards* 15-point organization standard v 0.1.115 or higher. Elements do not necessarily need to be presented in the order shown below. Trainers and organizations are encouraged to teach additional information above and beyond these standards at each level.

Body of Knowledge

1. General Topics
 - 1.1. History and overview of Six Sigma
 - 1.2. $y = f(x)$
 - 1.3. Process Variances
 - 1.4. TQM and other competing quality process improvement methods
 - 1.5. Understanding and recognizing opportunities to use Six Sigma within an organization
 - 1.6. Managing and understanding Quality as seen by the customer
 - 1.7. Deciding when to start a Six Sigma project
 - 1.8. Organizational Roles and Responsibilities of project members
 - 1.9. DMADV (Design for Six Sigma) variation
2. DMAIC - Define
 - 2.1. Defining a project
 - 2.2. The project charter
 - 2.3. Developing the business case
 - 2.4. Developing the project team
 - 2.5. Define Phase Review

3. DMAIC - Measure
 - 3.1. Process Mapping
 - 3.2. Basic Six Sigma statistics
 - 3.3. Cause & Effect
 - 3.4. Basic data collection
 - 3.5. Variation
 - 3.6. FMEA & Gage R&R
 - 3.7. Measure phase review

4. DMAIC - Analyze
 - 4.1. Verify root causes
 - 4.2. Analyzing opportunities
 - 4.3. Analyze phase review

5. DMAIC - Improve
 - 5.1. Brainstorming
 - 5.2. Improvement opportunities
 - 5.3. Plan for implementation
 - 5.4. Improve phase review

6. Control
 - 6.1. Control plan
 - 6.2. Final tollgate

7. Lean Components
 - 7.1. Basics of Lean
 - 7.2. Muda, Mura Muri
 - 7.3. Kanban
 - 7.4. Just-in-time
 - 7.5. Kaizen
 - 7.6. 5S
 - 7.7. Push vs Pull
 - 7.8. TIMWOOD