

Lean Six Sigma Black Belt Project Requirements

The Conlon Group requires completion of a Black Belt project in order to achieve certification. Candidates are required to submit a project report for each phase of their project. Once the report has been accepted, candidates will be invited to a tollgate to present and defend that phase of their project to a Master Black Belt. Report submission is facilitated within our learning management system. Each project phase requires an upload. Approval or feedback will be provided within 10 business days of submission. Below are the report requirements for each DMAIC project phase:

Define Phase

- **Submit Define Phase Report** - The Define Phase report must include the following:
 - Business Case - Why is this project important to the business
 - Problem Statement, Objective/Goal Statement
 - Primary Metric (expressed as an equation and displayed with a time series run chart)
 - Secondary Metric (expressed as an equation and displayed with a time series run chart)
 - Cost of Poor Quality
 - Project Scope, Project Plan, Project Timeline & Project Team
 - High Level Process Map
 - Pareto Chart

Measure Phase

- **Submit Measure Phase Report** - The Measure Phase report must include the following:
 - Detailed Process Map or SIPOC or Value Stream Map
 - Cause & Effect Diagram
 - Cause & Effect Matrix
 - Failure Modes & Effects Analysis
 - Graphical Analysis
 - Attribute or Variable Gage R&R
 - Process Capability
 - List of Possible X's to be verified or eliminated in Analyze

Analyze Phase

- **Submit Analyze Phase Report** - The Analyze Phase report must include the following:
 - Discussion of Sampling Strategies Used for Analysis
 - Normality Test
 - Test of Equal Variances
 - 2 Parametric Hypothesis Tests (e.g. 2 Sample t, One Way ANOVA etc.)
 - 2 Non Parametric Hypothesis Tests (2 proportions, Moods Median etc.)
 - At least one (1) verified critical X that will be tested and deployed in the Improve phase

Improve Phase

- **Submit Improve Phase Report** - The Improve Phase report must include the following:
 - Correlation Analysis
 - Simple Linear or Multiple Linear Regression
 - DOE Plan or Study Plan Intended to Prove X influence on Y in a Live Environment. (timeline, resource requirement, test variables, measurement system, costs etc.)
 - DOE Results Analysis or Planned Study Results
 - Executive Summary of Improvement Results

Control Phase

- **Submit Control Phase Report** - The Control Phase report must include the following:
 - Control Plan Including Response Plan
 - Communication Plan, Training Plan or Audit Plan
 - Use of 1 Lean Control Method (5S, Kanban, Poka Yoke)
 - Use of 1 Statistical Process Control Chart
 - 1 Page Project Executive Summary