

Caldwell & Associates Course Body of Knowledge

Green Belt Lean Leader Onsite & Virtual Boot Camp Workshop - 2 days - \$1,095

	Green Belt Lean Leader Onsite & Virtual Boot Camp Workshop - 2 days - \$1,095
	1.0 Define Phase
	1.1 Introduction to Lean, Six Sigma, Operational Excellence, and Industry 4.0
	1.2 Operational Excellence Culture - Workshop 1 What is your company culture?
	1.3 Identifying and Eliminating Waste - Workshop 2 Identifying Lean Waste
	1.4 Lean Six Sigma Roles & Responsibilities
	1.1.1 DMIAC Problem-Solving Approach
	1.1.2 Develop Project Charter - Workshop 3 Identifying a good problem statement
	1.1.3 The Problem Solving Strategy Y = f(x)
Define Phase	1.1.4 Voice of the Customer, Business and Employee
	1.1.5 Cost Benefit Analysis (CBA) - Workshop 4 Cost Benefit Analysis
	1.1.6 Developing Project Metrics
	1.2.1 Financial Benefits & Risk
	1.2.2 Failure Modes & Effects Analysis (FMEA)
	1.2.3 Building a Business Case & Project Charter - Workshop 5 Project Charter
	1.3 Critical to Quality Characteristics (CTQ's) - Workshop 6 Critical-To-Quality Flow Chart
	1.4 Pareto Analysis (80:20 rule) - Workshop 7 Pareto Analysis
	1.4.1 Lean 5S Visual Management Systems to Support Workplace Safety
	1.4.2 Lean Six Sigma Design for Manufacturing
Measure Phase	2.0 Measure Phase
	2.1 Process Analysis Tools
	2.1.1 Process Definition
	2.1.2 SIPOC
	2.1.3 Spaghetti Diagram - Workshop 8 Spaghetti Diagrams
	2.1.4 Service & Product Process Flow Charts - Workshop 9 Process Flow Chart
	2.1.5 Value Stream Map - Workshop 10 Value Stream Mapping
	2.1.6 Swinlane Diagram
	2.2 Principles of Product and Service Flow
	2.2.1 Batch verses One Piece Flow Simulation
	2.2.2 Bottleneck and Dynamic Bottlenecks
	2.2.3 Takt Time
	2.2.4 Just-In-Time
	2.2.5 Kanbans
	2.3 Quality Improvement Approach
	2.3.1 Total Cost of Quality - Cost of Poor Quality (COPQ) - Workshop 11 COPQ
	2.3.2 Root Cause Analysis
	2.3.3 Fishbone Diagrams and 5-Whys



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Analyze Phase	3.0 Analyze Phase	
	3.1 Patterns of Variation	
	3.1.1 Stratification - Workshop 12 Scatter Plot	
	3.1.2 Multi-Vari Analysis	
	3.1.3 Classes of Distributions	
	2.2 Rapid Changeover Setup Reduction - Workshop 13 Lean Edit Free Download Microsoft	
	2.3 Six Sigma Statistics	
	2.3.1 Basic Statistics - Workshop 14 Histogram & Boxplot	
	2.3.2 Descriptive Statistics	
	2.3.3 Normal Distributions & Normality - Workshop 15 Normal Distribution Graph	
	2.3.4 Graphical Analysis	
	2.4 Measurement System Analysis	
	2.4.1 Precision & Accuracy - Workshop 16 Precision & Accuracy	
	2.4.2 Bias, Linearity & Stability	
	2.4.3 Gage Repeatability & Reproducibility (Gage R&R)	
Improve Phase	4.0 Improve Phase	
	4.1 Lean Comparison Analysis	
	4.2 Improve & Implementation Plan	
	4.3 Standardization	
Control Phase	ABC Fighter Aircraft Plant	
	Physical Interactive Learning Workshop with Knex Building Blocks	
	Only available with onsite training.	
	5.0 Control Plan	
	5.1 Implement Lean Controls	
	5.1.1 Control Methods for 5S	
	5.1.2 Poka-Yoke (Mistake Proofing)	
	5.2 Statistical Process Control (SPC)	
	5.2.1 Data Collection for SPC	
	5.2.2 I-MR Chart - Workshop 17 Individuals-Moving Range (I-MR) Chart	
	5.2.3 Xbar-R Chart - Workshop 18 X-Bar-R Control Charts	
	5.3 Lean Comparison Analysis with Cost Benefit Analysis	
	5.3 Sustain Lean Improvements	
Certifica-	Caldwell & Associate Certification Exam included with the course. LGB project must be approved.	
tion Exam Require-	You must have a lean green belt project and pass the exam by 70% or higher for certification.	
ments	Lean Six Sigma Master Black Belt Project consulting consultation to completion of the project.	
Software	Lean Edit Software - 30 days Free Download only available with Microsoft computers	