StonePath
BUSINESS SOLUTIONS

Master Process Improvement and Technology to Drive Manufacturing Innovation

MANUFACTURING EXCELLENCE: ADVANCED DATA DRIVEN TECHNOLOGY

Dual Certification Option with Lean Six Sigma Black Belt

Lean Six Sigma methodologies are combined with cutting-edge data-driven technology, preparing participants to lead in the era of Industry 4.0.

Stay ahead with Data-Driven Process Optimization

Learning Outcomes

- Learn Advanced Statistical Analysis Techniques with Minitab
- Statistical Process Control using Minitab
- Advanced Lean Six Sigma Methods
- IoT and AI in manufacturing
- Introduction to Limble CMMS
- Advanced Project Management Techniques

Requirements

- Lean 6 Sigma Green Belt Cert or Manufacturing Excellence: Data Driven Technology certificate
- 2 years industry experience
- Computer access with Microsoft suite
- Minitab software license*
- *6 month student license available

Why StonePath?

Our comprehensive 48-hour course combines Lean Six Sigma methodologies with the latest in IoT and digital tools to optimize processes and achieve measurable results. Our dual certification allows participants to also obtain their Lean Six Sigma Black Belt Certification.

Certification

- Manufacturing Excellence: Advanced Data Driven Technology
  - Attend training & pass final exam
- Lean Six Sigma Black Belt Certification
  - Meet above requirements
  - Meet project requirements

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Curriculum

Module 1: Foundations
Lean Six Sigma history and principle
DMAIC framework
Defining project scope and key metric
Performing stakeholder analysis
Introduction to data-driven problem solving
Theory of Constraints
Data driven solution selection
Advanced project management

Module 2: Data Collection and Measurement System
IoT and real-time data collection
Measurement Systems Analysis (MSA)
Gage R&R studies in Minitab
Data quality and integrity
Advanced mapping techniques using Minitab and Microsoft Suite

Module 3: Advanced Statistical Process Control (SPC) with Minitab
Hypothesis testing
Regression analysis and DOE
Data visualization and dashboards
Predictive analytics with machine learning models

Module 4: Facilitating Advanced Root Cause Analysis
5 Whys
Cause & Effect, or Fishbone Diagrams
Failure Modes & Effects Analysis (FMEA)
Kaizen facilitation

Module 5: Process Automation and Smart Manufacturing
Industry 4.0 technologies (IoT, AI)
Automating process control
Smart manufacturing case studies

Module 6: Lean Tools and Waste Reduction
Value stream mapping with real-time data
Digital support for 5S, Kanban, and Kaizen
Automating waste detection and process tracking

Module 7: Control and Sustainability Using Technology
Control charts and real-time SPC with Minitab
Process capability analysis
Real-time dashboards and IoT platforms
Control plan development
Transition to sustaining process

Module 8: Capstone Project (if applying for Black Belt Certification)
Capstone Project
Practical project applying learned concepts
Requires company project with goal of saving at least 50K annually
utilizing the tools and techniques learned throughout the training
Company letter with Controller or Project Champion signature attesting to project savings.
Project presentation and evaluation

Pricing:

$1,299 per learner

$500 per learner for Minitab 6 month student license if needed (All students must have Minitab license for training)