

PROFESSIONAL DEVELOPMENT



Pennsylvania
College of Technology
A Penn State Affiliate

LEAN SIX SIGMA



Participants will train in the DMAIC methodology

and learn to apply tools like voice of customer, Failure Mode and Effects Analysis (FMEA), hypothesis testing, regression, design of experiments, response surface methodology, stakeholder analysis, and change management to their projects. Training occurs online, four hours per day, one day per week, for 11 consecutive weeks, with a project presentation held two months later.

INSTRUCTOR: James Athon,
Athon Group, Inc., Alabama
(Instructor bio and training agenda on reverse side)

COST: \$5,500/person and includes instruction, coaching, and materials.

Potential funding may be available to offset the cost.



Testimonial

“West has been on a very progressive lean manufacturing/six sigma journey; the higher level courses such as the six sigma black belt certification through the PIRC are of special interest to our company. Since the inception of the partnership with PIRC; and, largely due to the six sigma efforts, our company has realized year-over-year hard dollar savings and has avoided capital spending due to efficiency and utilization gains. These higher-end trainings become the foundation for change management within our organization that allows West to thrive in today’s tough environment.”

Sr. Director Global Engineering
America’s West Pharmaceutical Services



TRAINING AGENDA



INSTRUCTOR JAMES ATHON

brings a wealth of experience from both manufacturing and service industries. He has been involved exclusively with quality and process improvement for over twenty years, coming from a strong industrial and manufacturing engineering background. Athon received his Six Sigma Black Belt training in 1995 while at AlliedSignal Automotive, going on to work as a Master Black Belt at GE Industrial Systems. His strength is communicating complex subjects to students at any understanding level. He has taught and coached Black Belts nationally and internationally.

Athon has trained employees in the manufacturing, health care, food manufacturing, medical, and plastics industries with a guaranteed return on investment (ROI) and has certified over 1,000 employees.

DEFINE/MEASURE

Define

- ◇ Lean Enterprise Overview
- ◇ Six Sigma Overview
- ◇ Process Excellence
- ◇ Organization & Roles
- ◇ Cost of Poor Quality (COPQ)
- ◇ Selecting & Prioritizing Projects
- ◇ Suppliers, Inputs, Process, Outputs, and Customers (SIPOC)

Measure

- ◇ Voice of the Customer
- ◇ Card Drop Exercise
- ◇ Brainstorming Projects
- ◇ Initial Data Analysis
- ◇ Lean Six Sigma Project

Management

- ◇ Team Dynamics & Meeting Management
- ◇ Eight Wastes
- ◇ Financial Mining
- ◇ Value Stream Analysis
- ◇ Project Management
- ◇ Overall Equipment Effectiveness (OEE)

Measure

- ◇ Cycle Time & Takt Time
- ◇ Standard Work
- ◇ Single-Minute Exchange of Dies (SMED) Phase 1 & 2
- ◇ (SMED) Phase 3 & 4
- ◇ (SMED) Standard Work
- ◇ Reliability Engineering
- ◇ Basic Statistics
- ◇ Process Mapping
- ◇ Initial Data Analysis
- ◇ Prioritization Matrix
- ◇ FMEA
- ◇ Minitab Overview
- ◇ Operational Definition
- ◇ Attribute Gage Repeatability & Reproducibility (GRR)

Analyze

- ◇ Total Productive Maintenance (TPM) Part I
- ◇ Attribute Data Tests
- ◇ Regression Overview
- ◇ Regression Testing
- ◇ Analyze Testing Plan

IMPROVE/CONTROL

Analyze

- ◇ Review of Define/Measure/Analyze
- ◇ Design of Experiments
- ◇ Response Surface Methodology Overview

Improve

- ◇ Total Productive Maintenance (TPM) Part 2
- ◇ Demand Variability
- ◇ Kan Ban Systems
- ◇ Poka Yoke

Control

- ◇ Statistical Process Control
- ◇ Quality Systems
- ◇ Control & Response Plan
- ◇ Project Documentation
- ◇ Translating Opportunities
- ◇ Project Closure & Handoff
- ◇ Variable Gage Repeatability & Reproducibility (R&R)
- ◇ Data Collection

Measure/Analyze

- ◇ Standard Work Analysis
- ◇ Workplace Design
- ◇ Water Beetle
- ◇ Cross Training
- ◇ Variable Capability Assessment

pct.edu/workforce

Workforce Development

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Penn College operates on a nondiscriminatory basis.