

Richard O. Lynch, Ph.D.

Richard is a Six Sigma Consultant with 24 years of experience. He provides excellent training and consulting in Six Sigma methodologies. This includes introductory statistics as well as advanced methods. Expertise includes experimental design and multivariate modeling, applied to manufacturing and non-manufacturing processes. He has delivered greenbelt and blackbelt certification for the following companies: Trane, Invensys, Exide Technologies, Citizen Bank, Continental Tire, Cavendish Farms, Emerson Process, Romer, McQuay, Zotos International, Kenametal, and Hershey. Richard holds a Bachelor of Science from the University of Central Florida, a Masters of Statistics from the University of Florida and a Ph.D. in Statistics from the University of Florida.

Six Sigma Black Belt Certification

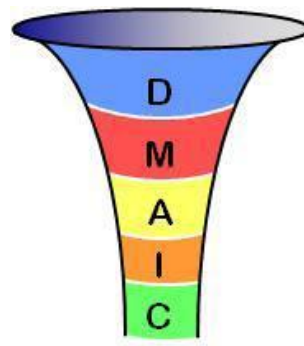
OVERVIEW

The Certified Six Sigma Black Belt is a professional who can explain Six Sigma philosophies and principles, including supporting systems, and tools to others. A Black Belt should demonstrate team leadership, understand team dynamics, and assign team member roles and responsibilities for any Six Sigma project. Six Sigma will drive an organization toward achieving high levels of customer satisfaction while reducing operational costs. It is a fact-based, data-driven, problem solving methodology that uses statistical tools to solve problems with unknown solutions and unknown root causes.

A core part of Six Sigma is the use of a structured problem solving methodology: DMAIC– Define, Measure, Analyze, Improve, & Control. This method utilizes project chartering, data collection, and statistical analysis to select the right opportunity, implements the most appropriate improvements, and emphasizes sustaining those improvements over the long term. Certified Black Belts have advanced knowledge of Lean Enterprise concepts, are able to identify non-value-added elements and activities, and to use specific tools.

TYPICAL SIX SIGMA IMPLEMENTATION BENEFITS:

- Cycle time reduction / faster throughput
- Defect /rework elimination / reduction
- Improved internal / external quality
- Improved customer satisfaction
- Dramatic improvement in the "bottom-line"



BLACK BELT PROGRAM BENEFITS:

- Learn Six Sigma powerful statistical tools; how to apply them to improve business processes
- Attain peer and employer recognition
- Complete a project at your organization that utilizes tools taught throughout the course
- Become a *Six Sigma Black Belt* certified by the Manufacturers Resource Center

COURSE DESCRIPTION

This course provides participants a comprehensive application based approach to applying Six Sigma Black Belt level statistical tools. Participants will learn by applying the tools taught within the DMAIC method through the use of Minitab and interactive exercises. Throughout the workshop, time will be allotted for project review and mentoring. Candidates then complete a project at their organization in order to demonstrate competency in applying Six Sigma methodology.

COURSE FORMAT & SCHEDULE

Week 1 – 4.5 days

Week 2 – 4 days

Week 3 – 4 days

Week 4 – 4 days

Each week is approximately one-month apart.

COURSE OBJECTIVES

Be trained to:

- Understand the history, deployment, roles, and concepts of Six Sigma
- The importance of using DMAIC and how it sustains Six Sigma Project results
- Create a project charter and SIPOC
- Funnel variables using Process Mapping, C&E Matrix, and FMEA
- Link input/output data using the formula [$Y = f(x)$] in statistical analysis
- Create Pareto Diagrams, Graphical Summaries, and other Multi-variable charts in Minitab
- Calculate RTY and DPM/DPMO for a process
- Conduct a variable/attribute Measurements Systems Assessment/Gage R&R (Advanced MSA)
- Create both variable and attribute control charts: I-MR, X-bar R, P, NP, C, & U
- Understand the Basic Lean Tools
- Calculate Cp & Cpk for both normal and non-normal process data
- Understand the concepts of hypothesis testing, normality, and chi-square
- Conduct T-Test, one-way & two-way ANOVA, a correlation and regression analysis, nested and randomized block designs
- Plan and conduct a fractional and full factorial experimental design (DOE)
- Understand the fundamentals of conducting a qualitative DOE (multiple subjective evaluation)
- Understand multiple response optimization and Response Surface Methodology (RSM)
- Recognize the benefits of conducting evolutionary operations (EVOP)
- Understand the importance of implementing Mistake Proofing / Poke Yoke
- How to create a process control plan, savings plan and project transition plan

WHO SHOULD ATTEND?

CEOs, VPs, Directors, General Managers, Managers, Engineer, Supervisors, Group Leaders, QA / QC Managers & Supervisors, Financial Analysts, Accountants or anyone in management or leadership positions that want to apply the Six Sigma methodology to reduce defects, improve processes, increase throughput, and improve the bottom line financial results.

FOR MORE INFORMATION CONTACT:

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