



# Six Sigma (3 Days) ST00125

**COURSE GOAL:** If lean manufacturing moves your products through processes faster, and Six Sigma improves their quality, just imagine what combining these two powerful disciplines will do for you! This course provides the key to transforming your results in any manufacturing environment, giving you detailed, practical processes that let you leave the training room, and apply the concepts immediately!!!

**PREREQUISITES:** None

**LEARNING OBJECTIVES:**

Upon completion of this course, the students will:

- Understand what the Six Sigma process is.
- Understand how the Six Sigma process works.
- Follow the steps of the Six Sigma process in order to become more efficient.

**KEY TOPICS:**

**I. Why Use Lean Six Sigma to Reduce Cost?**

- A. Transactional Example: Lean Six Sigma Transforming Our Government
- B. The Alloy of High Performance: Why Choose Lean Sigma to Reduce Cost?
- C. Lean Six Sigma vs. Traditional Cost-Cutting Tactics
- D. Emerging Stronger Than Ever

**II. Find Cost Reduction Opportunities in Waste**

- A. The Seven Common Faces of Waste: TIMEWOOD
- B. Using the Full LSS Toolkit to Drive Cost Reduction
- C. Special Tips for Nonmanufacturing Process
- D. Design A Successful Six Sigma Project or Pilot

**III. Use the Voice of the Customer to Identify Cost-Cutting Opportunities**

- A. Customer Types and Their Needs
- B. Collecting Data on Customer Needs
- C. Getting Specific About Customer Needs
- D. Avoiding Misinterpretations
- E. Conclusion

#### **IV. Make Processes Transparent to Expose Waste**

- A.** How to Define the Boundaries Through SIPOC Diagrams
- B.** Using Value Stream Maps to Achieve Transparency
- C.** Conclusion

#### **V. Measure Process Efficiency: Finding the Levers of Waste Reduction**

- A.** Process Cycle Efficiency (PCE): The Key Metric of Process Time and Process Cost
- B.** Little's Law: Understanding the Levers for Improving Process Speed
- C.** The WIP Cap Method: How Limiting WIP Can Increase Process Speed and Reduce Cost
- D.** Using PCE and Little's Law to Drive Cost Reduction

#### **VI. Improve Your Analysis Skills: How Understanding Variation, Root Causes, and Factor Relationships Can Help You Cut Cost While Improving Quality**

- A.** Analysis Skill # 1: Learning to "Read" Variation
- B.** Analysis Skill # 2: Digging Out Root Causes
- C.** Analysis Skill # 3: Establishing Relationships Between Factors
- D.** Conclusion

#### **VII. Make Rapid Improvements Through Kaizens**

- A.** Quick Overview: The Kaizens Approach
- B.** When Should You Use Kaizens in Cost Reduction Projects
- C.** Seven Keys to Kaizen Success
- D.** Conclusion

#### **VIII. Think Transformation, Not Just Improvement**

- A.** Attain a Proper Understanding of the Extent of the Opportunity
- B.** Consciously Choose a Path to Capture the Opportunity
- C.** Plan for a Transformation Journey
- D.** Leadership Challenges in Leading a Transformation

#### **IX. Unlock the Secrets to Speed and Flexibility**

- A.** Alignment and Analytics
- B.** A Model of Speed and Agility
- C.** Economic Order Quantity (EOQ)-The First 100 Years
- D.** Augmenting EOQ with Lean Analytics
- E.** The Equations in Action

#### **X. Reduce the Cost of Complexity**

- A.** The Hidden Cost of Added Offerings on Processes
- B.** Assessing Complexity In Your Business: A Holistic View
- C.** Highlights of the Complexity Analysis Process
- D.** Complexity Reduction as the Gateway to Transformation

#### **XI. Look Outside your Four Walls to Lower Cost Inside**

- A.** What is an Extended Enterprise?
- B.** Working on the Supplier End of the Extended Enterprise
- C.** What to Do when You're the Supplier: Extending Your Enterprise Downstream
- D.** Conclusion

**XII. Create a Pipeline of Cost Improvement Projects: The secret to Protecting the Heart of Your Business**

- A. Developing Rigor in Project Identification and Selection
- B. From First-Time to All the Time: Shifting From a One-Time Event to an Ongoing System of Pipeline Management
- C. Link Project to Value Drivers
- D. Maintaining a Dynamic Pipeline

**XIII. Smooth the Path Through Change**

- A. Change readiness Assessments
- B. Leading vs. managing the Change
- C. Upgrading Your Communication Plan
- D. Process Ownership and Cost Accountability

**XIV. Establishing a Center of Excellence**

- A. What is a CoE and What Does It Do?
- B. Performance Management
- C. Replication: Copy and Paste Your Cost Savings
- D. How can CoE Fit into an Organization
- E. Weaving the CoE Into Strategic Planning

**XV. Gaining New Perspectives on Deployment Cost and Speed Opportunities**

- A. Looking for Focus and Flexibility in Deployment
- B. Focusing Deployments on Business Issues
- C. Flexibility in Building Skills
- D. Conclusion

**XVI. Reenergizing a Legacy Program**

- A. Why Deployments Lost Steam
- B. Building a Steam Engine: Performance Management
- C. Process Ownership: The Partner of Performance Management
- D. How To Reenergize a Deployment