LEARN SIX SIGMA
BLACK BELT

LEAN + SIX SIGMA
Two Powerful Initiatives, One Integrated Program

Dramatically improve cost, quality, and delivery by combining the strengths of two powerful business process improvement initiatives through the systematic approach of the TMAC Lean Six Sigma (LSS) program.

Integrated into the Define, Measure, Analyze, Improve, Control (DMAIC) project management structure, Lean + Six Sigma results are impactful, robust, and sustainable.

Expect to be immersed in a hybrid learning environment of instruction, group exercises, hands-on simulations, teach-backs, project presentations and review of industry case studies. Experienced instructors emphasize practical application of tools and share lessons learned from hundreds of completed projects.

Learning doesn’t stop once training is over.
Participants can access TMAC LSS Master Black Belts before, during and after training for coaching to rapidly apply what they learn.

Engage with more than 35 LSS tools.
*See back for full list

Earn your LSS BB certification.
Complete the course. Apply what you’ve learned on a project according to the TMAC certification guidelines. Become certified.

TMAC Black Belts experience a median financial impact of $150,000 per year.
The Texas Manufacturing Assistance Center (TMAC) accelerates the profitable growth of manufacturers by implementing methods, innovation, technology and best practices to develop and improve products, processes and people. TMAC TEEX and East Central Regions operate out of the Texas A&M Engineering Extension Service in Houston and College Station, TX. TMAC is an affiliate of the Manufacturing Extension Partnership (MEP) program of the National Institute of Standards and Technology (NIST).

**TMAC Training Center**
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713.357.4950 • team@tmacteex.org

**TO REGISTER:** TMACTEEX.org/leansixsigma

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**SPRING 2017**

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**Main Topics Module**

- 5S Workplace Organization
- ABC Stratification
- Analytical Batch Sizing
- Kaizen Rapid Improvement Events
- Mistake Proofing
- Process Constraint Analysis
- Process Flow and Balancing Improvement
- Pull Systems and Kanbans (Generic and Replenishment)
- Rolled Throughput Yield
- Setup Reduction (SMED)
- Stocking Strategy
- The Value of Speed
- Total Productive Maintenance (TPM)
- Value Stream Mapping (Single and Multi-plant)
- Visual Process Control Tools
- Work Simplification
- Evaluating Alternative Solutions (AHP, Pugh Matrix)
- Failure Modes and Effects Analysis (FMEA)
- Piloting the Solution
- Process Control and Implementation Plans
- Project Charters
- Project Planning & Management
- Root Cause Tools (Fishbone, Pareto, C&E Matrix)
- Solution Generation and Selection
- Team Facilitation & Brainstorming Methods
- Voice of Customer (VOC) Analysis

**Statistical Analysis**

- Analysis of Variance (ANOVA - One and Two way)
- Basic Statistics, Variation and Graphical Analysis
- Control Charts (Variable and Attribute)
- Data Collection and Sampling Strategies
- Dealing with Non-Normally Distributed Data
- Design of Experiments (Planning, Design & Analysis)
- Hypothesis Testing (Continuous and Discrete)
- Process Capability (Continuous and Attribute)
- Regression (Simple and Multiple)
- Statistical Process Control (SPC)

** INCLUDED **

Multiple LSS References: Guide books, Pocket Toolbooks and Binders of the weekly slides

Access to TMAC LSS Master Black Belts before, during and after training for:

- Project chartering
- Project coaching
- Tool selection and interpretation of results
- Review of project documentation for certification

** REQUIRED **

Laptop computer with MS Excel

Course requires participants to have Minitab loaded on their laptop with an active license.

Participants should come to the event with a defined problem description that is impacting the business. Instructors will assist participants in completing a project charter.

$9,990 per participant (group discounts available)