



LEAN SIX SIGMA BLACK BELT PROGRAM

Now using Leaner Six Sigma (LrSS)©

The ACCELERATED LEAN SIX SIGMA BLACK BELT TRAINING PROGRAM AND METHODOLOGY© uses our copyrighted Leaner Six Sigma which allows students to complete certification requirements faster than traditional Six Sigma and Lean training programs. SSD Global is the only service provider that has created a recognized Lean Six Sigma Body of Knowledge that is based on the ASQ Six Sigma Black Belt Body of Knowledge principles and incorporates the Laws of Lean Six Sigma.

Lean Six Sigma combines two of the most powerful improvement methodologies in modern history – Six Sigma Methodology and Lean Thinking. This course is designed for business professionals who have significant experience in business operations and are capable of working independently.

We offer a unique 1-2-3 program. Phase 1 is an intensive instructor-led workshop. Phase II is comprised of on-line homework and an on-line exam. Phase II is designed to reinforce Phase I and to allow students on-line practice using various statistical formulas and tools. Phase III is the project phase also handled on-line. Students are given templates to do project charters and project reports. Students are encouraged to choose work-related projects.

Phases II and Phase III is mentored by an on-line post instructor who works individually with each student.

Here is an outline for Phase I – the workshop phase.

Day 1

- Basic Concepts Review
- Principles of Process Improvement
- Comprehensive Overview Lean Six Sigma
- Applying Lean Six Sigma to ISO, CMM, and TQM
- Identifying and Eliminating Waste – Speed Bumps
- DMAIC Advanced Process Overview
- PDCA Advance Process Overview

Day 2

- Quality Basics – Q-Bok
- Agile Methods Applied to Lean Six Sigma
- Advanced Lean & Six Sigma Tools
- Process Capability
- Variation Analysis
- Theory of Constraints
- Gage R&R Exercises
- Workable Score Card Methods
- QC Analytical Problem Solving Tools

Day 3

- QC Analytical Problem Solving Tools (Continued)
- International Standards and Global Guidelines
- ISO 13053 (New Six Sigma Standard)
- Continuous Improvement and Problem Solving
- SPC – Statistical Process Control
- SPC Charts
- Interpreting Charting Patterns
- Variation Analysis
- Measurement Systems Analysis
- Failure Modes and Effects Analysis
- Project Selection and Application

Day 4

- Value Stream Analysis and Mapping
- Reverse Brainstorming
- Six Sigma impact on Lean
- Agile Thinking impact on Lean
- ISO 9001 impact on Lean
- 5S Protocol
- Leadership in Lean Six Sigma
- Cultural Concerns
- Managing Difficult Team MembersMistake Proofing
- Failure Modes and Effects Analysis
- Rapid Improvement Events (Kaizen)

Day 5

- Practical Applications:
 - Pareto
 - Histogram
 - Swim Lane
 - PERT
- Flowcharting
- Introduction to:
- Poka-Yoke
- TPM
- Takt-Time
- Engaging Reluctant Participants
- Developing Buy-In

PHASE II

On-line exercises and assignments intended to increase the understanding of Phase I. This is followed by on-line testing. If the student passes the test by more than 75% they automatically advance to Phase III. If not, the student has three choices: 1) Phase out as a LSS Yellow Belt with no additional work or 2) Do additional work in Phase II – we realize that not all students are good test takers or 3) Do additional work and one project charter plus one project report to achieve LSS Green Belt status.

PHASE III

Students submits two project charter (charter). The project charter must have an existing process that needs to be made better, faster or more-cost effective. This needs to include a projected ROI and completion date. When does the student think the project will be completed? What does the student believe this project could make, save or avoid spending expressed in dollars? Once the project charter is accepted the student begins the project and at the end submits a project report (report)

When their post instructor approves the reports, it is submitted to a committee for final review. Accepted reports must include an actual ROI. ROI is described as how much the project made or saved or avoided spending.

Throughout the process the student may be requested to make revisions to the charter or report.

Templates for the charter and project along with various other templates are available on the student page.

Student may be eligible to submit a previous report to count as a LSS Green Belt report.

Additional Requirements:

LSS Black Belt candidates must also do the following under the guidance of an LSS Master Black Belt:

Do a presentation using their own slides and handouts to an audience of preferably LSS Green Belts

Write a white paper, case study or article about Lean Six Sigma

Mentor and critique LSS Green Belt candidates