



# LEAN SIX SIGMA

## INTERNATIONAL CERTIFICATION



ENCOURAGING BUSINESS SUCCESS  
FOR A BETTER WORLD



# Developing high performance professionals and organizations since 1998



For 25 years, the Lean Six Sigma Institute has researched and developed knowledge on the application of the Lean Six Sigma philosophy to all processes of any type of organization.

LSSI Training and Certification is currently accredited by the Six Sigma Council (CSSC), the world's largest Six Sigma accreditation provider, and since 1998 has trained and certified more than 67,000 Lean Six Sigma professionals and helped more than 400 organizations from a variety of industries to successfully implement Lean Six Sigma methodologies and tools, which have led to savings of more than \$500 million.

## **WORLD CLASS CERTIFIED TRAINERS**

The LSSI team is comprised of over 70 Lean Six Sigma expert trainers with training and implementation experience in a variety of industries such as agriculture, manufacturing, service, logistics, healthcare, etc.

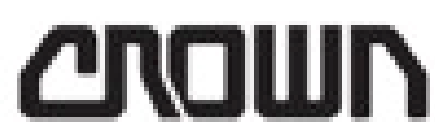
We assign a mix of teams of certified trainers and counselors in Lean Six Sigma Green Belt, Black Belt, or Master Black Belt according with the needs and requirements of our customers.



# International Recognition



LSSI has operations in 20 countries on 4 continents and is headquartered in San Diego, California. We have resources available to provide personalized services to organizations around the world.



# LEAN MANAGEMENT CERTIFICATION

## DESCRIPTION

The Lean Management program offers a proven system to significantly improve company performance. The program is designed to develop leaders in the successful implementation of Lean Management and the achievement of exceptional results.

## PROGRAM

- Introduction to Lean Six Sigma
- Business Model Canvas
- Strategic Planning: Hoshin Kanri
- Value Stream Management
- Talent Development

## BENEFITS

- Engaged & knowledgeable management team
- Understanding of a single system
- Leadership in improvement and teamwork
- Knowledge to increase profitability

## INCLUDES

- International Certification valid for life
- Instructional Material
- Support Files
- Templates



## OBJECTIVE

After completing this course, participants will understand the principles of Lean Six Sigma and the role leaders play in the transformation process of a company. Also, participants will be able to lead change through the application of Lean Six Sigma tools.

## WHO SHOULD ATTEND?

- Business owners
- Executives and senior management
- Board members
- Key personnel

## DURATION

8 hours

# LEAN SIX SIGMA WHITE BELT

## DESCRIPTION

Perfect for beginners, this course offers an introduction to the core principles and methodologies of Lean Six Sigma. Understand the basics of process improvement and how to contribute effectively to organizational efficiency. Kickstart your journey towards operational excellence and productivity.



## PROGRAM

- Introduction to White Belt
- Problem Solving
- 5S Housekeeping
- Visual Management (Andon)
- Standard Work Instruction

## DURATION

8 hours

## INCLUDES

- Instructional Material
- Support Files
- Templates
- Certificate or Certification

## WHO SHOULD ATTEND?

Everyone on the organization

## OBJECTIVE

Upon course completion, participants will possess a foundational understanding of Lean Six Sigma, allowing insight into individual roles and responsibilities within the system's operation.

## BENEFITS

- Equip all personnel with valuable insights into the improvement process.
- Foster a shared understanding of business improvement methodologies.
- Encourage full and enthusiastic participation in all Kaizen events.
- Promote the generation of impactful ideas to refine processes and optimize work.
- Elevate employee motivation through involvement in continuous improvement initiatives.
- Aim for a minimum of one successfully implemented improvement per person within each designated period.

# LEAN SIX SIGMA YELLOW BELT

## DESCRIPTION

Designed to equip you with fundamental principles and methodologies, this course lays the groundwork for understanding Lean Six Sigma concepts. Gain essential skills to actively contribute to improvement projects within your organization. Take the first step towards a leaner and more optimized operational future.



## PROGRAM

Introduction to Yellow Belt

### Define Phase

- 4-Quadrant Analysis
- Project Definition A3 & Documentation

### Measure and Map Phase

- Data Collection
- Overall Equipment Effectiveness (OEE)
- Current State Value Stream Map (VSM)

### Analyze Phase

- Spaghetti Diagram
- Balance Chart
- Waste Analysis
- Failure Mode and Effects Analysis (FMEA)

### Improve Phase

- Kaizen
- Continuous Flow
- Quick Preparations (SMED)
- Total Productive Maintenance (TPM)
- Kanban
- Future State Value Stream Map

### Control Phase

- Standardized Work
- Poka Yoke
- Kata

## DURATION

24 hours

## OBJECTIVE

Upon course completion, participants will possess the ability to proficiently implement Lean tools, employ adaptable problem-solving techniques, and proactively avert potential issues, ensuring smoother operational processes.

## WHO SHOULD ATTEND?

- Students
- Working Professionals
- Executives, managers, and engineers
- Lean Six Sigma practitioners

## BENEFITS

- Develop a common language for business improvement
- Establish a large-scale system for company savings
- Achieve a significant reduction in operating costs
- Optimize process efficiency, resulting in improved response times across various operations.

## INCLUDES

- Instructional Material
- Support Files
- Templates
- Certificate or Certification

# LEAN SIX SIGMA GREEN BELT

## DESCRIPTION

Proficient in Lean Six Sigma methodologies, Green Belts are pivotal change agents, leading high-impact projects to enhance efficiency and drive sustainable excellence within organizations.

## PROGRAM

Introduction to Green Belt

### Define Phase

- Define the Project
- Voice of the Customer (QFD, Kano, Needs Tree)

### Measure and Map Phase

- Process Maps
- Measurement System Analysis (MSA)
- Basic Statistics
- Sampling
- Histograms

### Analyze Phase

- Process Capability
- Process Performance
- Box-Plots
- Hypothesis Test and Confidence Intervals
- Multivari

- Analysis of Variance (ANOVA)

- Correlation

### Improve Phase

- Design of Experiments (DOE)

### Control Phase

- Statistical Process Control (SPC)
- Control Plan

## DURATION

40 hours



## OBJECTIVE

Upon course completion, participants will possess the ability to apply Lean Six Sigma principles across diverse organizational landscapes.

## BENEFITS

- Empower highly-trained individuals proficient in advanced improvement methodologies.
- Efficiently reduce organizational overhead.
- Attain a significant reduction in overall expenses.
- Elevate the quality of products and services.
- Minimize process variations for improved efficiency and consistency.

## PREREQUISITE COURSES

- Yellow Belt Course / Certification

## INCLUDES

- Instructional Material
- Support Files
- Templates
- Certificate or Certification

# LEAN SIX SIGMA BLACK BELT

## DESCRIPTION

Black Belts, proficient in Lean and Six Sigma methodologies, focus on implementing substantial company improvements. They lead critical projects and provide training and mentorship to staff. Businesses leveraging the expertise of Black Belts often witness direct, measurable, and significant cost savings.



## PROGRAM

Introduction to Black Belt

### Define Phase

- Agile Project Management (SCRUM)
- Trainer Coach
- Emotional Intelligence
- Financial Project Evaluation

### Measure and Map Phase

- Simulation

### Analyze Phase

- Theory of Constraints (TOC)
- Regression Analysis

### Improve Phase

- Fractional Factorial Designs
- Surface Respond
- Lean Company 4.0
- Lean Industry 4.0

### Control Phase

- Sustainable Model
- Leader Standard Work
- Gemba Walks

## INCLUDES

- Instructional Material
- Support Files
- Templates
- Certificate or Certification

## OBJECTIVE

Upon completion, participants will be able to lead Lean Six Sigma projects in any type of organization.

## BENEFITS

- Drive the creation of high-value internal projects.
- Effectively reduce material and quality costs.
- Enhance process parameters to drive cost efficiencies.
- Achieve operational flexibility through synchronized supply chain management.
- Drastically reduce variability, risks, and process failures.
- Attain a substantial enhancement in overall quality.

## PREREQUISITE COURSES

Green Belt Course/Certification

## DURATION

40 hours



# LEAN SIX SIGMA MASTER BLACK BELT

## DESCRIPTION

Master Black Belts are change catalysts, closely aligned with top management. Armed with an array of tools, they lead in embedding Lean Six Sigma philosophy into the organizational fabric, ensuring lasting sustainability and driving transformative change.



## PROGRAM

Introduction to MBB

### Management & Leadership

- Strategic Management
- Emotional Intelligence
- Sustainable Model (Lean Green)

### Innovation

- Exponential Growth
- Lean Layout
- Lean Innovation
- Value Engineering
- TRIZ
- Design for Six Sigma
- Design for Manufacturing

## INCLUDES

- Instructional Material
- Support Files
- Templates
- Certificate or Certification

## DURATION

40 hours

## PREREQUISITE COURSES

Black Belt Course/Certification

## OBJECTIVE

Foster proficient leaders for Lean Six Sigma implementation projects, equipped with advanced quality and operational tools, geared towards sustainable long-term applications, and a positive impact on business outcomes.

## BENEFITS

- Cultivate a team of experts committed to continuous improvement.
- Drive the creation and execution of high-value internal projects.
- Attain a remarkable return on investment, recovering benefits at least 10 times the initial investment within a 3-year timeframe.
- Attain unprecedented competitive advantages in both quality and speed, outpacing competitors.
- Ensure the sustainability of the culture of continuous improvement, fostering lasting organizational growth and development.

# Certification and Knowledge Accreditation by Lean Six Sigma Institute, LLC.

Our Certificates of Knowledge and Certifications, covering the three tiers of Lean Six Sigma Philosophy (Yellow, Green, and Black Belt) and various specialized domains, hold enduring international validity.

## REQUIREMENTS

### A) Certificate of Knowledge Acquisition:

Instructor-Led Courses:

- Attendance of a minimum of 80% of sessions.
- Successful completion of the corresponding exam with a minimum score of 80/100.

The Certificate of Knowledge can be obtained at the student's request, even if their intention is to pursue a Project for the relevant Certification.

### B) International Certification Achievement:

In addition to the prerequisites stated in subsection (A), participants must:


- Showcase a Project embodying the knowledge acquired during the respective Course:
  - **Yellow Belt:** Execution of a Project utilizing Lean tools (covered in the Course) following the DMAIC methodology, targeting a suggested minimum saving of \$25,000 USD.
  - **Green Belt:** Execution of a Project utilizing both Lean and Six Sigma tools (covered in both Courses), following the DMAIC methodology, aiming for a suggested minimum saving of \$50,000 USD.
  - **Black Belt:** Execution of a Project utilizing Lean and Six Sigma tools (covered in all three Courses), following the DMAIC methodology, targeting a suggested minimum saving of \$100,000 USD.
  - **Master Black Belt:** Execution of a Project utilizing Lean and Six Sigma tools (covered in all four Courses), following the DMAIC methodology, targeting a suggested minimum saving of \$500,000 USD.

All Projects (across the three levels) must meet the following criteria:

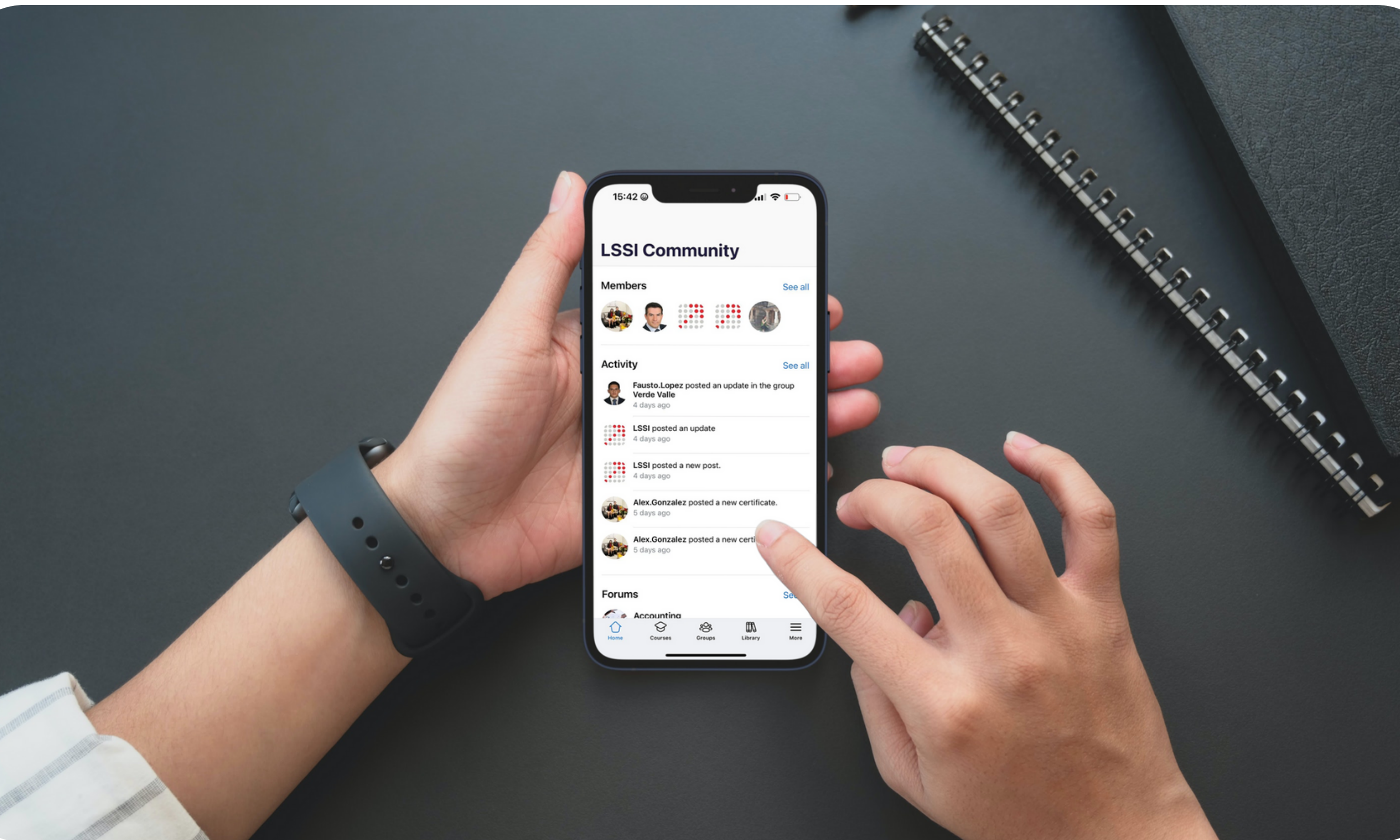
- Adhere to the DMAIC Methodology.
- Present a Map in the Measure phase (VSM, SIPOC, or Cross Functional, as appropriate for the Project).
- Apply necessary tools throughout all phases (with a focus on Improvement).
- Showcase operational benefits, including improved indicators.
- Translate operational benefits into financial gains.

In all cases, suggested savings are outlined, acknowledging that students may operate in smaller enterprises where achieving these savings might be challenging.

**IMPORTANT:** Each student may submit a single certification project at the culmination of the level they intend to achieve. The project's presentation timeline will be coordinated directly with the instructor.



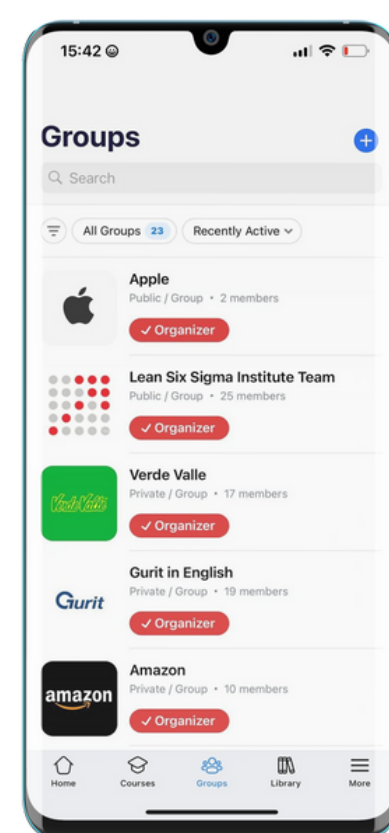
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Within our application, you will also be able to take your training, read your books, consult your certification manuals, download your certificates, and communicate with your Master Black Belt instructor.



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