# LEAN SIX SIGMA GREEN BELT

## PROBLEM TO SOLVE:

Ensuring that your workforce can effectively solve problems and make data-based decisions can be difficult without a proven way to train employees and approach problems. Lean Six Sigma Green Belt equips employees so they able to effectively lead project improvement teams using Lean Six Sigma concepts.

✓ This course is (4) 8-hour modules conducted over eight weeks and 1-2 hours coaching on a project.

✓ Participants apply class learning to a project in their organization.

✓ Useful tools and templates are provided

✓ A certificate of completion is provided

## BENEFITS:

✓ Engage employees

✓ Enhance employee's ability to solve problems using data

✓ Improve quality

✓ Increase efficiency

✓ Save costs

## Topics Include:

**Core Concepts**

The DMAIC problems solving process

**Problem-solving skills**

Identify and solve process-related issues, focusing on reducing waste and improving efficiency

**Data analysis**

Techniques for data collection and analysis to make informed decisions

**Project management**

Best practices to lead and manage projects

**Practical Application**

Coaching on a project to solidify learning

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# Focuses on skills that are imperative to data-based problem solving:

| Modules | TAKEAWAY TOOLS | EXPECTED OUTCOMES |
|---|---|---|

## Module 1: Overview and Define

Introduces the core concepts of Lean Six Sigma. Participants begin applying the Define phase of the DMAIC methodology to real-world improvement projects.

- ✓ Value Added vs. Non-value-added work
- ✓ Project selection and effective problem statements
- ✓ Communicaiton plans and project management
- ✓ Process mapping

**TAKEAWAY TOOLS:** A3 Form, Waste walk template, 4 Square decision making template

**EXPECTED OUTCOMES:**
- ✓ Define Lean Six Sigma
- ✓ Identify and categorize waste
- ✓ Select impactful projects
- ✓ Write an effective problem statement using A3
- ✓ Use mapping tools to define the current condition
- ✓ Create an effective communication plan

## Module 2: Measure

Learn to statistically describe data. Measure data and determine if in statistical control.

- ✓ Process mapping and data collection plans
- ✓ Central limit theorem
- ✓ Process capability
- ✓ Effective Teams
- ✓ Statistical process control

**TAKEAWAY TOOLS:** Data collection planning template, checklist template

**EXPECTED OUTCOMES:**
- ✓ Calculate basic statistics
- ✓ Communicate opportunities for improvement using A3
- ✓ Explain process capability and stability
- ✓ Identify common cause vs. special cause variation
- ✓ Create a histogram and control chart

## Module 3: Analyze

Learn to analyze data using problem solving tools and basic statistical tests

- ✓ 5 Whys
- ✓ Fishbone diagrams
- ✓ Pareto charts
- ✓ Basic statistical tests

**TAKEAWAY TOOLS:** Step by step instructions to statistically analyze data

**EXPECTED OUTCOMES:**
- ✓ Complete a root cause analysis using 5-Whys, Fishbone Diagrams, and Pareto Charts
- ✓ Determine if two or more data sets are the same or different
- ✓ Display data graphically using statistical software

## Module 4: Improve and Control

Learn tools and concepts to improve and control processes

- ✓ Lean tools and concepts
- ✓ Prioritizing solutions
- ✓ Management and statistical tools to control processes
- ✓ Overview of Training Within Industry-Job Instruction
- ✓ Overview of Toyota Kata

**TAKEAWAY TOOLS:** Improvement prioritization template, TWI (JI) Job Breakdown Template

**EXPECTED OUTCOMES:**
- ✓ Select the best lean tools to improve processes
- ✓ Conduct a pilot test on a solution
- ✓ Sustain process improvement using a combination of statistical and management tools
- ✓ Break down a process using Training withing Industry-Job Instruction methodology.
- ✓ Make process improvements a daily habit