

COURSE OUTLINE

Lean Six Sigma Black Belt Progressive Step 4

Program developed and delivered by EZSigma Group.



ΣZSIGMA

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Program Overview

A fully trained Lean Six Sigma expert leads improvement teams, works projects, and mentors trainees and has a thorough understanding of both Lean and Six Sigma.

This final step in the Progressive Lean Six Sigma program will prepare Black Belts to:

- Accept and validate and coordinate project mandate
- Apply the Lean Six Sigma “Breakaway” project methodology
- Train project team members
- Provide analytical summaries and interpretations
- Assist Champions in identifying projects and preparing appropriate project mandates
- Ensure project completion and projects are successfully transferred to process owners
- Coach and mentor Yellow Belts, Green Belts & Lean Masters
- Provide feedback to senior management on project progress and results



PART 1*:

Testing 1, 2, 3...

Process Data Analysis

- Regression analysis
- Foundations of structured hypothesis testing
- Basic hypothesis tests for means, variance and proportions

**The Black Belt training takes place over 5 days however the topic breakdown is outlined in 3 parts.*

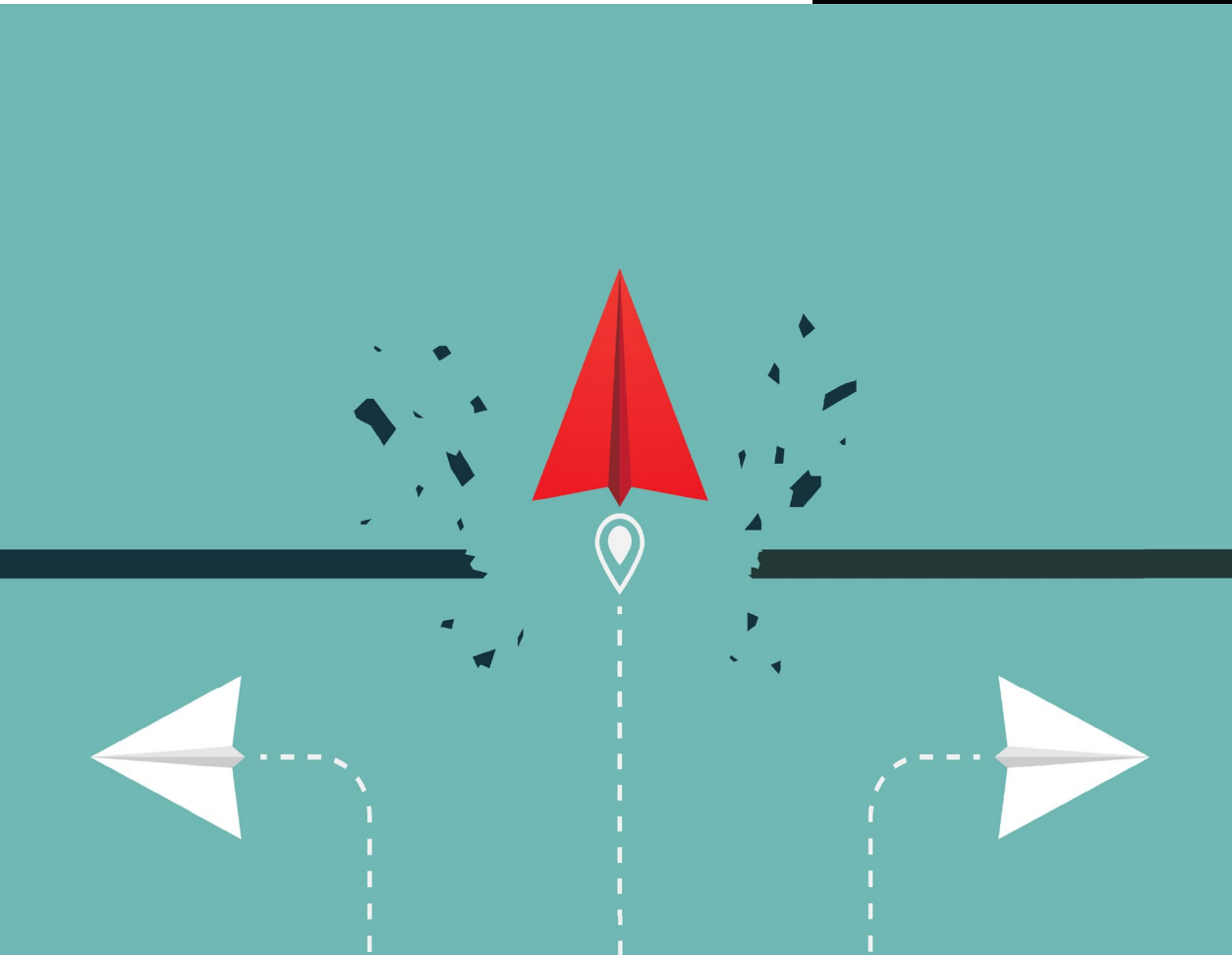


PART 2:

Digging into the Data

1. Advanced Process Data Analysis
2. Improving Operations by Eliminating Waste, Increasing Flow and implementing Pull
3. Implementing Control Plans





PART 3:

Thinking with a Black Belt Lens

1. Design for Six Sigma (DFSS) Concept
2. New Promoter Score Calculation and Application
3. Program review of key concepts and tools in Lean Six Sigma
4. Questions, Discussion, Confirm Learning

Training Outcomes

- Explain Lean & Six Sigma fundamentals (program and concepts)
- Establish & manage a project team
- Constructing a SIPOC and CTQ tree
- Complete a process flow map
- The eight sources of waste in lean organizations
- Construct a Cause & Effect diagram
- Use forced ranking tools prioritize information
- Prepare a Pareto analysis
- Design and execute a data collection plan
- Perform a measurement system analysis
- Apply basic statistics to describe process under review
- Prepare & interpret a histogram
- Complete process variability, capability and yield studies
- Complete a Risk Analysis (FMEA, FTA)
- Value stream mapping and value-added analysis
- Process rationalization
- Mistake-proofing
- Rapid change-over (SMED)
- Kaizen, 5S, standardized work and cellular design
- Visual workplace and visual controls
- Perform basic Hypothesis Tests ("t-Test", "F-Test", Chi-Square, etc)
- Correlation & regression analysis
- Perform basic Analysis of Variance (ANOVA)
- Conduct a Simple Designed Experiment
- Create and interpret basic Control Charts
- Create and execute a process control plan
- Successfully close a project
- Hypothesis testing (level II)
- Managing non-normal data and data transformation
- Probability models including Binomial & Poisson
- Non-parametric studies
- ANOVA & ANOM
- Design of Experiments (DOE)
- Conducting Historical DOE's
- Update process maps and associated metrics
- Design control plans and supporting control charts
- Prepare project recommendations & closing reports

Course Facilitator: Jeff Woods ASQ LSSBB, LSSMBB



Jeff Woods is a Master Black Belt with over 20 years of experience leading Lean Six Sigma deployment, training, and transformation initiatives. He has supported organizations across technology, manufacturing, financial services, and operations environments, focusing on practical application and measurable improvement outcomes.

He previously served as Director of Lean Six Sigma at Ceridian, where he led enterprise-wide continuous improvement strategy, training, and execution.

Jeff brings extensive experience delivering customized Lean Six Sigma training programs, mentoring improvement leaders, and helping organizations translate continuous improvement principles into measurable operational results.

Course Facilitator: Mike Norman, LSSMBB



Mike Norman is a Lean Six Sigma Master Black Belt with over 30 years of experience in operational excellence across healthcare, education, and public sector environments.

He specializes in Lean Six Sigma training, project coaching, and Lean system implementation. His experience includes leading multi-site improvement initiatives focused on patient flow, operational efficiency, and performance management.

Mike brings strong capability in translating Lean principles into practical, sustainable operational systems.

Mike brings extensive experience delivering customized Lean Six Sigma training, developing internal improvement leaders, and helping organizations build sustainable continuous improvement capability that drives measurable business results.

Course Facilitator: Riaz Ali, P.Eng., LSSBB



Riaz Ali is a Professional Engineer and Lean Six Sigma Black Belt with over 15 years of experience in engineering, energy, telecommunications, and municipal environments.

He has led major improvement initiatives for organizations including TC Energy, Bechtel, and ConocoPhillips Canada focusing on data-driven process improvement and operational optimization.

Riaz also brings significant instructional experience from the University of Calgary, where he has designed and delivered Lean Six Sigma certification programs.

Riaz brings extensive experience in continuous improvement training, data-driven decision making, and operational performance improvement within complex engineering and industrial settings, helping participants develop the skills required to lead and sustain meaningful business improvements.

Course Materials

Included with the registration fee are course materials and toolkit.

Participants will also be provided with recommended online resources.

Course Fee & Registration

Course Price: \$5995 + applicable taxes per person

Course Dates: October 14, 2026 (White Belt prerequisite) +
October 27 – 28, 2026 (Yellow Belt prerequisite) +
November 17 – 19, 2026 (Green Belt prerequisite) +
December 1 – 3, 2026: Black Belt part 1 +
December 15 – 16, 2026: Black Belt part 2

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