



# **Lean Six Sigma**

## **Black Belt, Green Belt & Yellow Belt**

### ***A Washington State Funded Training Program***

#### ***Commencing January 3, 2022***

***To minimize time away from the workplace, these instructor led, online training programs will be presented in a series of half-day training sessions over a seven-month timeframe.***

***Thanks to a Washington state funding grant, your cost for this comprehensive training program is \$495 per person for the Green Belt program and \$795 for the Black Belt program.***

***A discount of 80% from the regular cost.***

**This training program is for organizations that want to dramatically reduce scrap, rework, defects, delays, and other forms of waste in their operations**

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# Lean Six Sigma Training Program Overview

The Seattle Colleges are launching another Washington state-funded, Instructor Led, Online Lean Six Sigma combined Green Belt / Black Belt and Yellow Belt training program Commencing on January 3, 2023.



This training will be presented by ETI Group. Companies enrolled in this program can send employees to participate in:

- A 144-hour training program to learn the tools and techniques of Lean Six Sigma at the Black Belt level, or
- A 90-hour training program to learn the tools and techniques of Lean Six Sigma at the Green Belt level, or
- An 18-hour Yellow Belt class to learn the basic tools and methods of Lean Six Sigma

To minimize people's time away from the workplace, the Green Belt training sessions will be presented in a series half-day training sessions over a five-month timeframe. The six Black Belt training sessions will be presented in full-days.

Thanks to a Washington state funding grant, your total cost for the Green Belt training program is \$495 per person and total cost for the Black Belt training program is \$795 per person. This represents a discount of 80% from the regular cost for this training.

The Yellow Belt training is offered at no cost for companies registered to attend the Green Belt and/or Black Belt training programs

**Detailed information regarding this program follows below**



**Education  
Training  
Guidance  
Support**



# **Instructor Led, Online Yellow Belt Training Course**

**March 6 – 7 and March 20 – 21, 2023  
8:00AM – 12:30PM each training day**

Participants in this 18-hour duration training course will gain a good understanding of Lean Six Sigma concepts and tools, how they can be applied in their organization, and how to identify Lean Six Sigma improvement opportunities. **On completion of this program participants will be able to:**

- *Describe how Lean and Six Sigma can be integrated to focus on customer value and the reduction of non-value-added activities.*
- *Provide support to Lean Six Sigma Green Belts and Black Belts who are leading their organizations improvement projects*
- *Explain each phase of the Lean Six Sigma **Define, Measure, Analyze, Improve, Control** improvement methodology.*
- *Apply the most widely used Lean Six Sigma tools:*

***Define:** Project charter for problem statement, value stream and workflow scopes, SIPOC, project metrics, team and resource definition*

***Measure:** process mapping, data collection planning, use of statistical metrics*

***Analyze:** run charts, Pareto charts, stratification analysis, root cause analysis (5 whys, affinity analysis, cause and effect diagrams)*

***Improve:** structured brainstorming, benchmarking, multi-voting, cause and effect matrix for solution impact, Lean solutions, stakeholder engagement and solution piloting*

***Control:** control plans, statistical monitoring via control charts, response plans, process capability*

# ***Instructor Led, Online Green Belt Training Program Overview***

***January 3 – May 23, 2023***

***8:00AM – 12:30PM each training day***

Participants in this 90-hour Lean Six Sigma Green Belt training program will learn to apply the Lean Six Sigma DMAIC (**D**efine-**M**easure-**A**nalyze-**I**mprove-**C**ontrol) improvement strategy. Tools and methods are introduced with hands-on exercises and tutorials to ensure rapid learning and knowledge retention. A strong emphasis is placed on individual hands-on exercises and team-based activities. Classroom training sessions are interspersed with periods of work on a company-supported improvement project. **On completion of this program, participants will be able to:**

- *Deliver a financial return to your organization by completing a Lean Six Sigma Green Belt improvement project*
- *Apply benefit-feasibility analysis to identify improvement projects aligned with their organization's priorities for quality, delivery, customer satisfaction, and profitability.*
- *Successfully apply appropriate Lean Six Sigma Green Belt tools to future projects*
- *Perform basic statistical analyses using MS Excel*
- *Develop, evaluate, and implement improvements that can dramatically reduce scrap, rework, complexity, defects, delays, and other forms of waste in your operational processes.*
- *Translate Six Sigma analyses into recommendations for improving your workplace processes*
- *Apply statistical and/or non-statistical control tools to sustain the gains from project improvements*

# ***Instructor Led, Online***

## ***Black Belt Training Course Overview***

### ***January 3 – June 27, 2023***

Participants in this 144-hour Black Belt program will learn State-of-the-art tools for applying the Lean Six Sigma DMAIC (**Define-Measure-Analyze-Improve-Control**) improvement strategy. Hands-on exercises and tutorials ensure rapid learning and knowledge retention. Participants will learn the theory and application of advanced statistical methods, how to facilitate team-based activities, and how to apply the quantitative tools required for successful completion of improvement projects. Training workbooks are comprehensive, self-contained, and serve as references for learning and review. Classroom training sessions are interspersed with periods of work on a company-supported improvement project.

#### **On completion of this program participants will be able to:**

- *Apply benefit-feasibility analysis to identify improvement projects aligned with their organization's priorities for quality, delivery, customer satisfaction, and profitability.*
- *Facilitate team-based activities, including process mapping, cause-and-effect analysis, and root cause analysis.*
- *Perform basic statistical analyses using MS Excel.*
- *Understand advanced statistical methods, including Design of Experiments and use statistical software to correctly apply these advanced methods.*
- *Use JMP statistical software to produce informative graphics that are virtually impossible to produce in MS Excel.*
- *Develop, evaluate, and implement improvements that can dramatically reduce scrap, rework, complexity, defects, delays, and other forms of waste in your manufacturing and transactional processes.*

# **Green Belt – Black Belt Training Sessions**

## **Schedule and Modules Overview**

**Training Sessions are 8:00AM – 12:30PM each day**

<b>Date</b>	<b>Module</b>	<b>Module Description</b>
<b>January 3 - 4, 2023</b>	<b>Lean Six Sigma Overview</b>	Lean overview, Six Sigma overview, combining Lean and Six Sigma, relation to other initiatives, deployment, overview of DMAIC roadmap, DMAIC case studies, DMAIC project reporting.
<b>January 16 – 17, 2023</b>	<b>DMAIC Define Phase</b>	Identifying and prioritizing improvement projects, developing a project charter, boundaries for the in-scope process or workflow (part of SIPOC analysis).
<b>January 30 – 31, &amp; February 13 – 14, &amp; February 27 – 28, 2023</b>	<b>DMAIC Measure Phase</b>	Mapping the current-state, observing the current-state, identifying opportunities for improvement, types of data, Y and X variables, process sampling, sample size calculation, data formatting, data collection, current-state project metrics for continuous and nominal Y variables.
<b>March 13 – 14, &amp; April 10 – 11, 2023</b>	<b>DMAIC Analyze Phase</b>	Hypothesis testing, comparison & correlation hypotheses with continuous and nominal Y variables, P values, stratification analysis, Five Whys, affinity analysis, prioritizing root causes.
<b>March 27 – 28, 2023</b>	<b>Change Management</b>	Effective team leadership is a prerequisite in today's high-performance organizations. You will learn and practice the skills necessary to facilitate team development and manage change for optimal performance.
<b>April 24 – 25, 2023</b>	<b>DMAIC Improve Phase</b>	Identifying potential solutions, ranking solutions, team process, ranking solutions—DOE method, evaluating the future state with Failure Modes and Effects Analysis), piloting the future state.
<b>May 8 – 9, &amp; May 22 – 23, 2023</b>	<b>DMAIC Control Phase</b>	Standardizing and documenting, concepts of statistical process control, control limits, response plans, control plans, transition plan and Green Belt Exam.
<b>Green Belt Training Concludes</b>		

# **Black Belt Training Sessions**

## **Schedule and Modules Overview**

**Training Sessions are 8:00AM – 5:00PM each day**

<b>Date</b>	<b>Module</b>	<b>Module Description</b>
<b>June 5 – 6, 2023</b>	<b>DMAIC Measure Using JMP</b>	Statistical distributions, Normal/non-Normal distributions, assessing goodness of fit, process capability analysis, distributions and baseline analysis for reliability data, statistical graphics for continuous measurement system analysis, nominal measurement system analysis when there are no standards, tools for formatting data matrices.
<b>June 12 - 13, 2023</b>	<b>DMAIC Analyze Using JMP</b>	Comparison analysis, correlation analysis, simple linear regression, least-squares modeling, testing for nonlinearity, nonlinear regression, multiple regression, interactive effects, predictive models, confidence intervals, testing process performance objectives.
<b>June 26 – 27, 2023</b>	<b>DMAIC Improve Using JMP</b>	Introduction to Design of Experiments (DOE), terminology, design principles, process and product optimization, sample size calculation, multiple-response optimization, robust optimization, screening experiments. Black Belt Exam.
<b>Black Belt Training Sessions Conclude</b>		

**Training Course Materials:** All training program workbooks, handouts and templates will be provided by ETI Group. A 6-month temporary license to use JMP statistical analysis software is also be provided at no charge for participants in the Black Belt training program.

**Green Belt Certification:** Participants who complete the Green Belt training and pass the Green Belt Exam will receive a Green Belt Certification of Training Completion. On completion of one improvement project for their company they will receive a Certified Green Belt certificate. Details of the improvement project must be approved by the instructor prior to the award.

**Black Belt Certification:** Participants who complete the Black Belt training and pass the Black Belt Exam will receive a Black Belt Certification of Training Completion. On completion of one improvement project for their company they will receive a Certified Black Belt certificate. Details of the improvement project must be approved by the instructor prior to the award.



## What our clients say

"ETI Group's Lean Six Sigma training is the best combination of theory and applied solutions that I have seen. The learning format was easy to follow and the instructors out-standing."

**Anders Ohlsson,**  
**Boise Cascade**

"This program provided extremely valuable tools for enhancement and improvement in healthcare. The opportunity to apply the concepts and methods directly to a project was a great benefit."

**Mary Spiering,**  
**OHSU**

"This program exceeded my expectations. Projects completed during the program will more than recover the cost of your services and time away from the work-place. I thought that we were too small to recoup a reward, I was wrong."

**Larry Remmer,**  
**Accel Plastics**

"This is the best instructor I've ever had. Teaching style and analogies made the class enjoyable and informative. I learned much more than I thought possible."

**Sheree Willey,**  
**Barco Medical Imaging**

"Key Six Sigma skills that usually take days to grasp are easily understood and applied within the first few hours of this course. Why wait when you can learn Lean Six Sigma and use the tools immediately to create improvements? I highly recommend this organization."

**J. Randy Armatas,**  
**Evanite Corporation**

"The value of this training was very high. I'm very happy with the results and would give this program a rating of 10 out of 10!"

**Bob Siamro,**  
**Electro Scientific Industries**

**Who Should Attend:** This program is for Engineers, Quality Analysts, Process Improvement Specialists, and other people interested in learning the tools and methods of Lean Six Sigma at the Green Belt and/or Black Belt levels and applying them to make breakthrough improvements in performance within their organization.

### **Black Belt & Green Belt Training Prerequisites:**

Personal computing skills are essential to every Lean Six Sigma Green Belt and Black Belt. Participants in this program should be equipped with a laptop computer loaded with MS Excel (version 2007 or later).

**Lean Six Sigma Green Belt trainees** should also possess good communication skills and knowledge of high school algebra is recommended.

**Lean Six Sigma Black Belt trainees** should be self-starters, possess good communication skills and have had prior team leadership or member experience. Prior experience with statistical methods and a working knowledge of high school algebra is also recommended.

**Lean Six Sigma Improvement Projects:** Black Belt and Green Belt trainees should be assigned a Lean Six Sigma improvement project to work on during and between training sessions. This can be a team project or an individual person project. The instructor is available to assist you in improvement project selection. This topic is also covered in the first two training sessions.

**Improvement Projects Coaching Support:** Please note that each company participating in the Green Belt and/or Black Belt training will receive, if required, up to 8-hours of improvement project support by the instructor. This support will be provided between training sessions and for 10-months following the start the training program. If additional support is required, this can be provided at an additional cost.

## What our clients say

"The program material, in-class exercises, and right amount of homework were very helpful and very relevant to our needs. The group interactions were great. The instructor did an excellent job of presenting the material. His relaxed presentation style and humor really helped us get through what could have been some very dry technical topics. Great class!

**Ken Kelley, VP of Operations  
Precision Machine Works**

This program provided many new ways to look at the problems and issues we face. Putting everyone through this program made our company much stronger and more unified. The hands-on training using software to analyze data from our own and other companies was very valuable. The instructor's relaxed style made it easy to follow. I enjoyed the entire program!

**Sean Dooley, Production Manager  
NW Etch Technology**

I can't tell you how impressed I was the instructor's knowledge and teaching skills. In addition to a strong grasp of the material, he was able to convey it in a way that resonates with the audience. I can tell you that all the other participants were also impressed.

**Larry Reising,  
Federal Aviation Administration**

I enjoyed the classes, especially the hands-on exercises and software training. The pace was just right for me.

**Brad Keltto, QA Manager  
Primus International**

The course material will be a great addition to our reference library. The instructor had a great sense of humor and was able to make the material relevant to all participants. He was also able to communicate complex concepts effectively and knew when enough was enough.

**Brad Perrigo, Executive Director  
NW Cancer Specialists**

## Training Program Instructor

*Tracy Camp* has twenty years of experience helping organizations improve bottom-line business results. Specializing in Lean Six Sigma training and deployment support, Tracy has mentored and led enterprise-wide improvement projects resulting in multi-million-dollar cost savings. Prior to becoming a consultant, he served as Continuous Improvement Manager of an 800-employee company with responsibility for formulating their Lean strategy and leading the implementation in both manufacturing and non-manufacturing areas. As a consultant, Tracy has provided training and support services for small and large companies and has a consistent record of on-time and on-target project fulfillment. His ETI Group clients include: Aeroforge, Conmet, Fabriform Plastics, Micropump, Skills, Inc., and T-Mobile. Tracy holds a BS in Chemical Engineering from the Missouri University of Science and Technology, an MA in Economics from Colorado State University and is an ASQ Certified Six Sigma Black Belt.



## What our clients say

"The whole Lean Six-Sigma training experience was very motivational and productive for our company. All I hear are positive comments and genuine excitement. I am glad and thankful we had the opportunity to participate in this program.

Congratulations for a well done job."

**Adolfo De la Torre,**  
**Pulse Engineering.**

"I appreciated the practical applications and the hands-on opportunities of this class. My project included enhancing the wave solder process. We increased our capacity by 100%."

**Neil Schneider,**  
**Vanguard-ems, Inc.**

"The program content was great. I learned many great tools for analyzing data quickly and making better, more informed decisions. This has been a great course!"

**Ken Fisher,**  
**Pathway Medical**

"This training program exceeded expectations. It provided us with information and tools of great value. The instructor was knowledgeable and explained things in a way that everyone could understand. He also responded to requests for assistance in a positive manner."

**Phillip Patterson,**  
**Compass Aerospace**

The real world examples helped me understand the concepts and methods. The Excel templates made it easy to apply what we learned without having to worry about the mechanics. It was very helpful to work on projects specific to our own business during and after the class sessions.

**Peter Harvey,**  
**NW Cancer Specialists**

## Recent Client Lean Improvement Projects Completed

### Manufacturing

- A Semiconductor Manufacturer reduced failure rates by 50% with an annual cost saving of 3,600,000.
- A Plastic Molding company saved \$700,000 per year by solving a problem of parts failing final inspection for cosmetic damage.
- A Plastic Extrusion Company saved 2,200,000 per year by solving a die manufacturing process and reducing cosmetic damage.

### Service

- A city government improved its court collections process, resulting in a \$400,000 increase in annual revenue.
- A logistics company improved its on-time delivery. Late shipments were reduced by 43%.

### Healthcare

- Major causes of "ED on divert" were identified and a "mitigation action plan" developed. Daily hours of ED divert were reduced from 6 to 0.6, with an annual revenue increase of \$2,900,000.
- The average time from point of patient care to posting of patient charges were reduced from 5 days to 1 day. Daily charges for this organization are about \$1,000,000.
- Causes of wasted medication in a hospital pharmacy were identified and an improved process implemented. Costs reduced by 92%, with an annual savings of \$1,100,000.



## Who is ETI Group?

Based in the Pacific Northwest, ETI Group helps organizations get better at what they do. Our success is a reflection of our client's success and our in-depth knowledge and experience applying the tools and methods of Organizational Excellence in Numerous Manufacturing, Service Healthcare, Financial and Government Organizations.

## To date ETI Group has:

- Helped more than 1,200 companies improve bottom-line business performance
- Trained more than 500,000 people in the tools and methods of Quality Management and Operational Excellence.
- Conducted over 800 organizational assessments
- Developed and presented a series of Washington state sponsored Lean Six Sigma Black Belt, Green Belt and Yellow Training Programs for more than fifty Northwest-based companies.



**Education  
Training  
Guidance  
Support**



**For more information or  
to reserve your place(s) in this program,  
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