Lean Six Sigma
Black Belt, Green Belt & Yellow Belt

A Washington State Funded Training Program

October 18, 2021 – June 7, 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 on October 18, 2021.

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

**Education
Training
Guidance
Support**

To minimize people's time away from the workplace, the combined Green Belt/Black Belt and Yellow Belt training programs will be presented in a series of half-day duration training sessions over a seven-month timeframe.

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 signed up to attend the Green Belt and/or Black Belt training programs

Detailed information regarding this program follows below

Instructor Led, Online
Yellow Belt Training Classes

November 18 – 19 and December 2 – 3, 2021, and February 10 – 11 and February 24 – 25, 2022 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 and how they can be applied in their organization. Participants also learn 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 **D**efine, **M**easure, **A**nalyze, **I**mprover, **C**ontrol 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*

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
October 18, 2021 – May 17, 2022
8:00AM – 12:30PM each training day

Participants in this 144-hour Black Belt program will learn State-of-the-art tools for applying the Lean Six Sigma DMAIC (**D**efine-**M**easure-**A**nalyze-**I**mprove-**C**ontrol) 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 Classroom Training Schedule and Training Modules Overview
Training Sessions are 8:00AM – 12:30PM each day

Date	Module	Module Description
October 18 – 19, 2021	**Lean Six Sigma Overview**	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.
November 1 – 2, 2021	**DMAIC Define Phase**	Identifying potential improvement projects, prioritizing potential improvement projects, developing a project charter, establishing boundaries for the in-scope process or workflow (part of SIPOC analysis).
November 15 – 16, 2021 & November 29 – 30, 2021 & December 13 – 14, 2021	**DMAIC Measure Phase**	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.
January 3 – 4, 2022	**Change Management**	Effective team leadership is a prerequisite in today's high-performance organizations. A strong emphasis is placed on learning and practicing the skills necessary to facilitate team development and manage change to achieve optimal performance.
January 17 – 18, 2022 & January 31 & February 1, 2022	**DMAIC Analyze Phase**	Hypothesis testing, comparison and correlation hypotheses with continuous and nominal Y variables, P values, stratification and before-after analysis with continuous and nominal Y variables, Five Whys, affinity analysis, prioritizing root causes.

Green Belt – Black Belt Classroom Training Schedule and Training Modules Overview (Continued)
Training Sessions are 8:00AM – 12:30PM each day

Date	Module	Module Description
February 14 – 15, 2022 & February 28 & March 1, 2022	**DMAIC Improve Phase**	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.
March 14 – 15, 2022	**DMAIC Control Phase**	Standardizing and documenting, concepts of statistical process control, calculating control limits, response plans, control plans, transition plan and Green Belt Exam.
Green Belt Program Concludes		
March 28 – 29, 2022 & April 11 - 12, 2022	**DMAIC Measure Using JMP**	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.
April 25 – 26, 2022 & May 9 – 10, 2022	**DMAIC Analyze Using JMP**	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.
May 23 – 24, 2022 & June 6 – 7, 2022	**DMAIC Improve Using JMP**	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.
Black Belt Program Concludes		

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 educed by 92%, with an annual savings of $1,100,000.

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.

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

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.

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.

Improvement Projects Coaching Support: The instructor will be available to assist with improvement project selection and to consult on challenges presented by this project during and between training sessions and for one year following the start this training program.

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). Participants should possess the following skills:

- Using the MS Windows operating system, especially file management.
- Creating and modifying line and column charts in MS Excel.
- Modifying simple cell formulas in MS Excel

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

Training Program Instructor

Jeff Gray is a Lean Six Sigma Master Black Belt with fifteen years of experience providing Lean Six Sigma, SPC, and MSA training and implementation support for the Manufacturing, Financial, Gas & Energy, Healthcare, and and other Service Industries. His clients include Boeing Airplane Company, GM Nameplate, Capital One, Harrison Medical Centers, US Navy, Microsoft, EKOS Corporation, and Starbucks. Before becoming a consultant, Jeff served as a Quality Manager for PACCAR and as a Lean Six Sigma consultant for Price Waterhouse and Washington Mutual/JPM Chase. To date, students attending Jeff's Lean Six Sigma training programs have saved their company's more than $100mm through completion of Lean Six Sigma improvement projects. Jeff holds a B.S. in Business Administration from City University and is an American Society for Quality (ASQ) Certified Six Sigma Black Belt.
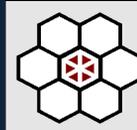
Who is ETI Group?

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 1,000 companies improve bottom-line business performance

- Trained more than 350,000 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 50 Northwest-based companies.

Education
Training
Guidance
Support

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