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For organizations that want to reduce scrap, rework, defects, delays, and other forms of waste!



Lean Six Sigma Yellow Belt - Green Belt - Black Belt

A Washington State Funded Training Program

October 2, 2018 – January 30, 2019

ETI Group, in collaboration with Clark College, Vancouver is presenting another Washington state-funded Lean Six Sigma Yellow Belt and combined Green Belt / Black Belt training program.

Companies participating in this program can send their employees to participate in:

- A two-day Yellow Belt training course to learn the basic tools and methods of Lean Six Sigma, or
- A ten-day training program to learn the Green Belt level of skills and knowledge, or
- A sixteen-day training course to achieve Black Belt Level of Mastery

Due to the Washington state funding grant, this training is offered at an 80% discount from the regular cost.

There is no charge for people to attend the two-day Yellow Belt training course

Total cost to attend in the 10-day Green Belt course is \$595 per person.

Total cost to attend the complete 16-day Black Belt program is \$795 per person.

This cost includes all necessary workbooks, templates, and a temporary (6-month) license to use the appropriate software programs.



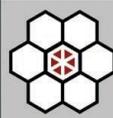
**Education
Training
Guidance
Support**



Detailed information regarding this Lean Six Sigma training program is provided on the pages that follow.

**Our Recent Clients
Include:**

Adidas
Barco Medical Imaging
Basic American Foods
Bemis Company
Boise Cascade
Cascade Microtech Inc.
Coinstar
Department of the Navy
DHL Express
Ekos Corporation
Electro-Scientific
Industries Expedia.com
FEI Company
GM Nameplate
Hewlett Packard
Hexcel Corporation
Industrial Distribution
Intermec Technologies
Jeld- Wen Inc.
Kaiser Permanente
Medtronics Physio Control
Microscan Systems, Inc.
Mikron Industries
OHSU
On-Semiconductor
PRECOR
Primus International RadiSys
Corporation Saint Gobain
Siltronic Corporation
Starbucks
SW Medical
Takata Corporation
Toray Composites America
United Defense
Wells Fargo Bank
Western RV



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Yellow Belt Training Program Overview

Participants in this two-day training course will gain an understanding of the Lean Six Sigma concepts and tools and how this can be applied in their work place. Participants will also learn how to identify Lean Six Sigma improvement opportunities and how teams and resources are structured to ensure successful completion of improvement projects. On completion of this program participants will be able to:

- *Describe how Lean and Six Sigma can be integrated to provide a focus on customer value and the reduction of non-value-added activities, defects and waste.*
- *Identify what constitutes a Lean Six Sigma project and the factors that lead to effective improvements.*

• *Explain each phase of the Lean Six Sigma **Define, Measure, Analyze, Improve, Control** methodology.*

- *Provide support to Green Belts and Black Belts who are leading improvement projects.*
- *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 plan, statistical monitoring via control charts, response plans, process capability*

**Lean Six Sigma Green Belt and Black Belt Program
Overviews are provided on the pages following**

Our Recent Clients Include:

A & G Machine
Accel Plastics
Achilles USA
Aero Controls
Aerojet
AIM Aviation
Aiphone Corporation
Algas-SDI
Alstom Grid
Amgen
AvtechTye Corporation
BE Aerospace
Bellmont Cabinet
Bradken Atlas Foundry
Cadence Aerospace
Carlisle IT
Coinstar
Commencement Bay
Corrugated
Compass Aerospace NW
Composite Solutions
Consolidated Metco
Davis Wire
Esterline Korry
Exotic Metals Forming,
Flow International
Fujifilm Sonosite
General Dynamics
Grakon International
Graphic Packaging
GT Development
Harper Engineering
Heatcon Services
Hexcel Corporation
Instrument Sales
Insulfoam



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Green Belt Training Program Overview

In this 10-day duration course you will learn the theory and application of the Lean Six Sigma tools and methods for the successful completion of improvement projects in a manufacturing business environment. Tools for the application of the Lean Six Sigma DMAIC (*Define-Measure-Analyze-Improve-Control*) improvement strategy are introduced with hands-on exercises and tutorials to ensure rapid learning and knowledge retention. Training workbooks are comprehensive, self-contained, and serve as great references for learning and review. After completing

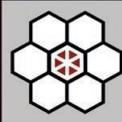
this 10-day Green Belt training program participants will be able to:

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

The Lean Six Sigma Black Belt Program Overview is provided on the page following

Our Recent Clients Include:

Matsushita Avionics
Systems Medallion Foods
Merck Pharmaceuticals
Mold Rite
NIC Global Manufacturing
n-Light Photonics
NW Etch Technology
Orion
Peacehealth
Pegasus Northwest
Precision Machine Works
Protective Coatings
REI
Red Dot Corporation
Sage Technology
Schwartz Brothers
Restaurants SEH America
Skills Inc.
Spacelabs Healthcare
SW Medical
Synsor Corporation
TECT Aerospace
Thales Aviation Services
The Box Maker
T-Mobile
TMX Aerospace
Toray Composites
America Triumph
Aerospace Systems
Umbra Cuscinetti
US Oncology
Vancouver Radiology
Zetec
Zetron
Zodiac Aerospace



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Black Belt Training Program Overview

In this 16-day Lean Six Sigma Black Belt program you 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. You 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 great references for learning and review. On completion of this program you will be able to:

- *Apply benefit-feasibility analysis to identify improvement projects aligned with your organization's priorities for quality, delivery, customer satisfaction, and profitability.*
- *Facilitate other team-based activities, including process mapping, cause-and-effect analysis, and root cause analysis.*
- *Perform basic statistical analyses using Excel.*
- *Understand advanced statistical methods, including Design of Experiments and use statistical software to correctly apply these advanced methods.*
- *Use JMP to produce informative statistical graphics that are virtually impossible to produce in 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.*

The Lean Six Sigma combined Green Belt - Black Belt Training Schedule is provided on the following pages



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Date	Module	Module Description
Oct. 2, 2018	Overview	Lean overview, Six Sigma overview, combining lean and Six Sigma, relation to other initiatives, deployment, overview of DMAIC project roadmap, DMAIC case studies, DMAIC project reporting.
Oct 3, 2018	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).
Oct. 16, 2018	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, Pareto analysis of defect types, Value-stream data collection and analysis, calculating mean time between failure using life data, measurement systems.
Oct. 17, 2018		
Oct. 30, 2018		
Oct. 31, 2018	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.
Nov. 13, 2018		
Nov. 14, 2018	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.

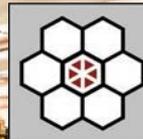


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Date	Module	Module Description
Nov. 27, 2018	Control Phase	Standardizing and documenting, concepts of statistical monitoring, response plans, control plans, calculating control limits for the control plan, calculating control limits based on short-term variation.
Nov. 28, 2018		
Green Belt Program Concludes		
Dec. 11, 2018	DMAIC Measure Using JMP	Fitting statistical distributions, Normal and non-Normal distributions, assessing goodness of fit, process capability analysis, distributions and baseline analysis for life (reliability) data, statistical graphics for continuous measurement system analysis, nominal measurement system analysis when there are no standards, tools for formatting data matrices.
Dec. 12, 2018		
Jan. 15, 2019	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.
Jan. 16, 2019		
Jan. 29, 2019	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.
Jan. 30, 2019		
Black Belt Program Concludes		

The optional two-day Yellow Belt Training Classes will be scheduled following completion of the Black Belt Program



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Recent ETI Group Client Successes

Lean Six Sigma 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 city government improved its petitioner-initiated annexation process and eliminated errors that could invalidate an election and cost per case was reduced by \$954.
- Average purchasing cycle time was reduced from 38 days to 5 days, and the problem of invoices without purchase orders was virtually eliminated.

Healthcare

- Major causes of “ED on divert” were identified and a “divert mitigation action plan” developed. Results: 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. Reducing costs by 92%, with an annual savings of \$1,100,000.

What our clients say

"The whole Lean Six-Sigma training experience has been 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 my expectations. It provided us with information and tools of great value. The instructor was very knowledgeable and explained things in a way that everyone could understand. He also responded to requests for assistance in a prompt and 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, between and after the class sessions. **Peter Harvey,**
NW Cancer Specialists



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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 and a new perspective 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

"The Lean Six Sigma 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 much of a reward, I was wrong."

Larry Remmer, Accel Plastics

"This is the best instructor I've ever had. His energy level, teaching style and analogies" made the class enjoyable and informative. I learned more than I thought possible."

**Sheree Willey,
Barco Medical Imaging**

"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**

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

**J. Randy Armatas,
Evanite Corporation**

Black Belt Certification

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

Green Belt Certification

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

Program Prerequisites

Green Belt and Black Belt trainees should be assigned a Lean Six Sigma improvement project to work on during and between training sessions. The instructors are available to assist with improvement project selection and to consult on challenges presented by this project between training sessions.

Program Instructors

Joan Ambrose has 20 years of experience in Operational Excellence, specializing in Lean Six Sigma training, coaching and consulting. She has also taught numerous corporate courses in SPC, Root Cause Analysis and Quality Function Deployment. Her Lean Six Sigma clients include General Electric and Kraft Foods. Joan holds a B. S. Industrial Engineering, a Master of Engineering and is a certified Six Sigma Black Belt.

Bethany Quillinan has 30 years of experience in Process Management and Operational Excellence. An experienced training course developer and instructor, Bethany has taught across the United States, Europe and Asia. Her clients include Hewlett Packard, Ascentec, Solarworld, ON Semiconductor and the FAA. Bethany holds a BS in Ceramic Engineering, an MA in Whole Systems Design for Organizational Systems Renewal, has passed the examination for Certified ISO 9001 Lead Auditor and is a certified Six Sigma Black Belt.

**ETI Group: Tel: 503-484-5979 or 360-681-2188
or Email: info@etigroupusa.com**

Lean Six Sigma Yellow Belt - Green Belt - Black Belt Training

A Washington State Funded Consortium Training Program



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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 Operational Excellence.

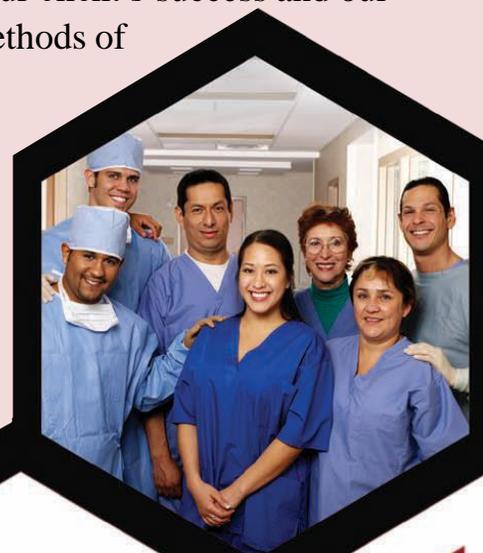
To date ETI Group has:

- Helped more than 1,000 organizations improve bottom-line business performance,
- Trained more than 350,000 people in the tools and methods of Quality Management and Operational Excellence.
- Conducted more than 800 organizational assessments
- Developed and presented a series of Washington state sponsored Lean Six Sigma Green Belt and Black Belt Training Consortium Programs

ETI Group services are tailored to fit the individual needs of each client. Regardless of where you are in the improvement process, we have the skills and experience to help.

For more information or to reserve your company's place(s) in the Yellow Belt, Green Belt or Black Belt training program, please contact:

Jack Benham, ETI Group
Tel: 503-484-5979 or Email:
jbenham@etigroupusa.com



Education
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