Solomon EOS™

EBLS Lean Six Sigma Green Belt

Students entering this training will work detailed Value Stream Maps and will identify areas of waste with an in-depth look at the sources of defects and the associated quality issues. They will apply Lean Six Sigma tools - including statistical analysis - to reduce sources of waste and then to verify the effectiveness of their solutions. This course emphasizes interactive simulations, small group interaction, and a comprehensive real-world project in order to gain the distinction of Certified Green Belt.

Who Should Attend: Green Belts include individuals with diverse technical, operational and/or transactional backgrounds. Natural candidates to become Green Belts are people whose current positions are routinely associated with or directed at problem solving. Individuals identified for this intense training should be those who will be expected to become continuous process improvement team members.

Objective: After certification, Green Belts usually function as part-time members of Lean Six Sigma, process improvement action teams within their functional area. Green Belts usually work under the supervision and mentorship of a Black Belt, and may be associate team leaders in a closely scoped project or sub-project. In less complex organizations, Green Belts may lead process improvement efforts.

Green Belts must have completed the Lean Six Sigma Yellow Belt Certification requirements.
The workshop is concluded with a coached project, wherein each Green Belt must demonstrate the ability to implement process improvement using Lean Six Sigma methodologies. Upon successful completion of the project, the participant will become a Certified Green Belt.

Each trained Green Belt will be able to:
- Apply DMAIC methodology to organize project thinking and work
- Apply the DMAIC methodology using lean tools and graphical data analysis tools
- Develop and communicate a Project Charter
- Apply basic project management skills to identify and manage tasks
- Construct high level process maps (SIPOC)
- Capture Voice of the Customer (VOC) and convert into measureable Critical to Quality (CTQ) Key Performance Indicators (KPI's)
- Understand of Measurement System Analysis (MSA)
- Compare the process to specifications using Capability Analysis (Cp, CPk)
- Develop data collection plans
- Use Pareto Charts to rank categories and apply the 80/20 rule
- Construct Run Charts, Scatter Plots, Box Plots, Bar Charts, Multi-Vari Charts and Histograms to identify process trends and sources of variation
- Construct Cycle Time (Line Balance) charts
- Compute Takt time and assess work-load balance
- Understand the role of statistics to model and predict real processes
- Calculate descriptive statistics of a data set
- Determine if a data set is normally distributed

- Understand the concept of statistical probability (P-value) using Standard Normal, Z, statistics
- Evaluate statistical correlation between two variables
- Describe the Y=f(X's) concept of modeling inputs and outputs
- Model input/output relationships using Regression analysis
- Compare process means and proportions
- Describe the purpose and benefits of Design of Experiment (DOE)
- Construct basic DOE designs
- Understand the basics of Statistical Process Control (SPC) Chart construction
- Interpret SPC charts
- Develop control plans
- Implement Visual Controls
- Implement TPM practices to improve process reliability
- Establish and document standard work

Credit for this course is CEU based on the Clock Hour system as determined by the Institution. Additionally, participants completing this course may be eligible for academic credit as determined by the institution.

Lean Six Sigma Green Belt

Green Belt certification delivers in-depth training preparing participants to lead Lean Six Sigma efforts and project teams. This class includes 60 hours of e learning modules and 20 hours of classroom training, with individual coaching between classes. Participants complete a real-world project as part of certification.