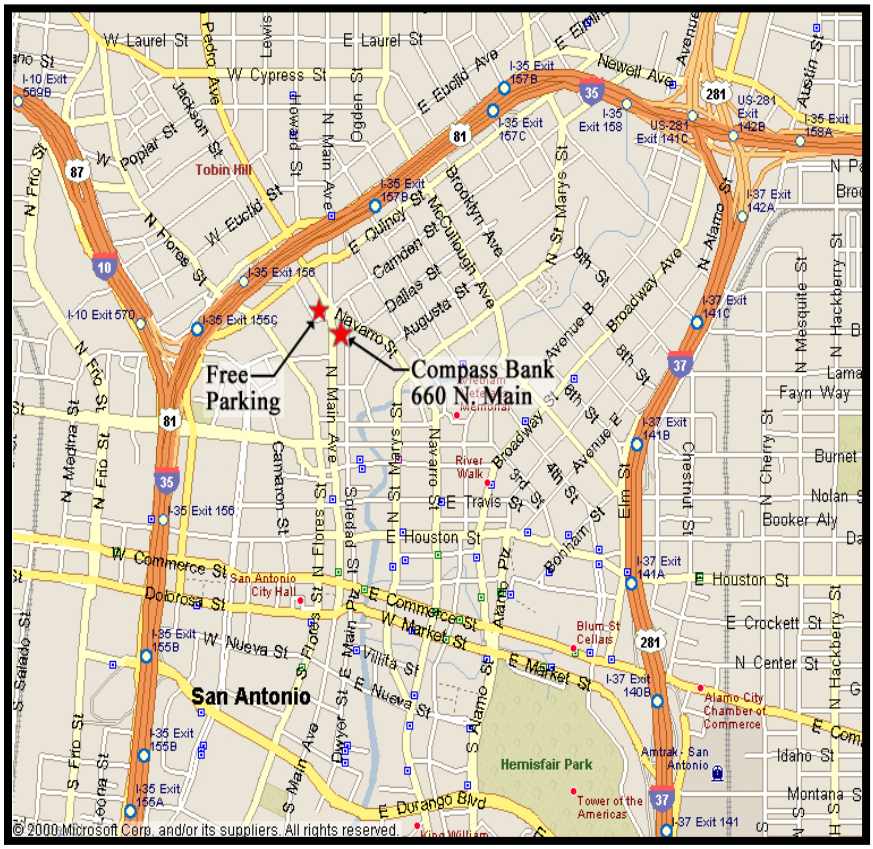
Six Sigma And Lean Black Belt Course

When: February 19-23
March 19-23
8:30AM – 4:30PM each day

Note: We understand that our participants may need to leave early on Friday in order to make airline connections home. We structure our agenda with this in mind. Please make us aware of your travel schedule as soon as possible to help us with our arrangements.

Where: San Antonio Learning Center
660 N. Main Street, Suite 100

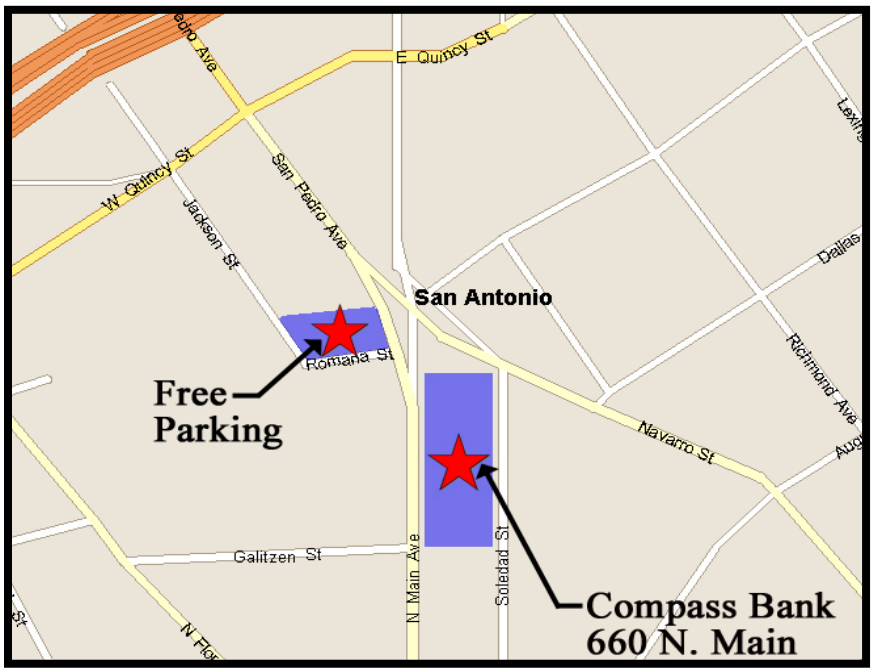


Directions From I-35 Southbound:

- Lower level – exit San Pedro
- Left on San Pedro
- Right into parking lot (just past Quincy St.)
- Park in Compass designated spaces
- Walk across Main St. to the American Payroll Association / Compass Bank building

Directions From I-35 Northbound:

- Exit Durango Blvd.
- Left on South Flores St.
- Follow Flores St. to Quincy St.
- Right on Quincy St.
- Right on Jackson St. as it turns to Romana St.
- Left into parking lot (last driveway just before Main St.)
- Park in Compass designated spaces
- Walk across Main St. to the American Payroll Association / Compass Bank building



Course Description:

This 10 day course covers all the items you need to successfully lead an overall Six Sigma and Lean program or an individual Six Sigma and Lean project. We cover project management, quality, statistical, and financial concepts.

We've been where our students will be. We know the importance of hands-on understanding and communicating training material in a non-threatening way. We make statistics and other concepts make sense by using plenty of examples and interactive exercises from manufacturing, service, and other scenarios!

Agenda:

The following is an abridged version of the topics we cover. We integrate these concepts throughout the course, so the following does not represent the exact order in which we cover material. Additionally, we're always adding content based on student feedback and the latest best practices.

In the beginning…

- Getting started
- Six Sigma basics
- Infrastructure and reporting
- Project and process management
- Process performance metrics – defects, defectives, DPU, DPMO, RTY, cost of poor quality, hidden costs
- Benchmarking
- SWOT analysis
- Financial measures – NPV and ROI
- Project selection
- Using Minitab

The DMAIC Process: Define, Measure, Analyze, Improve, Control

- The Voice of the Customer
- Translating customer needs into Critical To Quality requirements
- Process mapping

- Data types and data collection
- Basic probability and statistics
  - Mean, median, interquartile range, variance, standard deviation, population and sample
  - Probability terms, rules, and definitions
  - Conditional probability and Bayes' theorem,
  - Continuous and discrete variables, probability density functions, central limit theorem, z-transformation, sample size and standard error, sampling error
  - Distributions - Binomial, student's t, Poisson, normal, chi-square, F, hypergeometric, exponential, lognormal, and Weibull
- Measurement System Analysis
  - Bias, linearity, stability, repeatability, and reproducibility
  - Gauge R&R
  - Metrology
- Process capability and process performance
- Short term versus long term variability
- Capability for non-normal data and attribute data
- Box plots, dot plots, stem and leaf plots, run charts, and probability plots
- Measurement plans

- Basic quality tools
  - Checksheets, Pareto charts, cause and effect diagrams, histograms, scatter plots
  - Control charts - common and special cause, special cause tests, XmR, x-bar-R, x-bar-s, c, u, np, p
  - Failure modes and effects analysis (FMEA)
- Confidence intervals, hypothesis testing, and statistical significance
- Stratification
- Multi-vari charts
- Test for proportions and test for proportion mean (large and small sample sizes)
- Decision theory

- Comparing two populations and comparing success rates for two populations
- Comparing means for two populations, comparing means for small samples, and paired comparison
- ANOVA and ANOM
- Correlation and regression
  - Simple regression
  - Multiple linear regression
  - Non-linear regression

- Design of Experiment (DOE)
  - Screening
  - One-factor ANOVA
  - Two-factor ANOVA
  - Full and fractional factorial design
  - Taguchi
  - Mixture experiments
  - Response surface methodology
  - EVOP
- Brainstorming and selection techniques
- Piloting and implementing
- The 1% rule

- Monitoring, standardizing, and documenting
- Theory of constraints
- Lean
  - Sources of waste
  - 5S/visual workplace
  - Value stream management
  - Cell design
  - Pull systems
  - Total productive maintenance
  - Mistake-proofing
  - Quick changeovers (SMED)
- Reliability – repairable and non-repairable systems
- Pre-control
- Short-term SPC
- EWMA and CuSUM

Additional topics

- Establishing a winning culture
- Quality gurus and what they've taught us
- Deming's 14 points
- New product development and Design For X
- Marketing and selling Six Sigma, Lean, and your successes
- Net People Value: Getting the most from ourselves, our teams, and our customers
- Taking Six Sigma and Lean into the supply chain
- More tools
  - QFD
  - Affinity diagrams
  - Interrelationship digraphs
  - Tree diagrams
  - Process decision program charts
  - Activity network diagrams

A few of our examples and exercises

- Project New Orleans: You're In Charge
  An exercise in project selection and running an overall Six Sigma and Lean program

- The Lemonade Stand
  A capstone exercise to tie Six Sigma and Lean concepts together

Project Lexington
An example in reducing cycle time

Make your own sunglasses
An exercise that teaches lessons in new product development and design from all aspects of an organization

Lean Japan: One year of experiences in one hour
Examples that will teach you how others look at creativity, continuous improvement, leadership, and employee development

The FV45'ers: The lean machine
An example of participatory continuous improvement using lean concepts

Who Should Attend?:

Executives, managers, engineers, and other employees who will be expected to lead projects and show great proficiency with Six Sigma and Lean methodologies and tools.

Instructor:

Jeff Shapiro
President, Python EFK

Shapiro is a Certified Six Sigma Black Belt with sixteen years of engineering and management experience in the automotive, consumer product, and medical device industries. He has implemented millions of dollars of improvements in a variety of organizations and has assisting his clients and students in doing the same.

While with Technical Auto Parts, a subsidiary of Musashi Seimitsu, he learned Lean through hands-on work during an international assignment at the parent company's headquarters and main manufacturing plant in Toyohashi, Japan. Upon his return to the United States, he developed and implemented much of the U.S. operation's continuous improvement efforts and continued to learn best practices through his regular interaction with Honda, Technical Auto Parts' largest customer.

Upon moving to Chicago to pursue his MBA, Shapiro brought a continuous improvement culture to Owens Illinois' North Riverside plant and was crucial in doubling the organization's assembly production without the addition of a single piece of equipment or a single operator. Backorders were significantly reduced and plant performance skyrocketed.

While with Bausch and Lomb's Eyewear Division, Shapiro held a number of engineering and management positions, culminating in his assignment at the company's facility in Nuevo Laredo, Mexico with responsibility for new product development for the North American fabrication and assembly operations.

Shapiro's domestic and international experience has shown him the good and bad in large and small companies throughout the world. He enjoys helping organizations evolve their corporate cultures and improve their employees' skill sets. His experience contributes to his passion for improving processes through Six Sigma and Lean, and he is continuously in search of ways to push the envelope in an effort to stay ahead of global competition.

Shapiro has a BSE in Electrical Engineering from the University of Michigan – Ann Arbor. He holds an MBA from the University of Chicago with concentrations in Finance and Production/Operations Management.

What You Get For Your Investment:

When you walk out of our class, you'll be able to lead an overall Six Sigma and Lean program or an individual Six Sigma and Lean project. You will also be able to direct others to assist in completing projects.

You will be well on your way to at least $100,000 in annualized savings or similarly growing your business as you work on your project.

Our course is completed in two weeks rather than the traditional four weeks. We save you travel costs and time away from your day-to-day responsibilities by practicing what we preach and "leaning" our training process.

We are the only Six Sigma and Lean provider that is able to blend the recognized Six Sigma and Lean Body Of Knowledge with our unique prior experience managing new product development of one of the world's best known consumer brands and performing lean work in the Japanese automotive industry.

We provide you with valuable training material you can reference throughout your Six Sigma and Lean journey.

By taking our live public training course, you benefit from class interaction that can be missed in on-demand courses. Classmates may come from public or privately-held organizations and have backgrounds including but not limited to manufacturing, financial services, logistics and distribution, transactional businesses, and non-profits. Their processes may be different than yours, but the methods and tools we'll use to improve them come from the same toolbox.

We provide you with a morning snack, lunch, and afternoon snack during each of the 10 days of training. Breaks are approximately 15 minutes each and lunch is one hour, leaving you time to eat, get to know your classmates better, and keep up with any business issues back at your office.

Our training takes place only a few blocks from San Antonio's Riverwalk. Contact us if you need hotel, restaurant, golf, or entertainment suggestions. The NBA's San Antonio Spurs will be in-town February 20th (Denver Nuggets), March 21st (Indiana Pacers), and March 23rd (Detroit Pistons).

We'll certify you as a Python EFK Six Sigma And Lean Black Belt and reward you with a plaque stating such upon successful completion of our course and a project that saves at least $100,000 while demonstrating your understanding of the methodology and tools we learn during the course.

Registration:

$5,995

Registration may be made by mail, FAX, or phone.

Payment methods include:

Mail: Credit card, company purchase order, check/money order
FAX: Credit card, company purchase order

For additional payment methods, contact us.

Python EFK, Inc.
14123 Kings Meadow
San Antonio, TX 78231
(210) 764-8202
solutions@pythonefk.com

Although not required, we recommend attendees come to class with a laptop computer with Minitab Release 14 installed. A free trial of this statistical software package is available at http://minitab.com/products/minitab/14/demo/.

Our Guarantee:

Enroll in the regularly priced Python EFK Six Sigma & Lean Black Belt public training session.

Come to the initial class with a Six Sigma & Lean project that has been reviewed and approved by your Finance Department and is projected to save at least $100,000 annualized. It should be a project that can be completed within six months.

Attend all classes.

Following course completion, provide brief monthly e-mail updates on your project status showing you are making a good-faith effort to complete your project.

Present your final project report within six months of completing the course.

If at that time, the project is not projected to save at least $100,000 annualized, we'll provide your organization with a $500 credit toward a future Python EFK Six Sigma & Lean Black Belt or Green Belt course.

About Python EFK, Inc.:

Python EFK is your source for Six Sigma, Lean, and new product development training and support. We also offer project management, employee development, and sourcing solutions. To find out more about our organization, check our website at www.pythonefk.com.