

Six Sigma

Six Sigma Black Belt - Two 5-Day Sessions or Online

Course Code: SIG601

The Six Sigma Black Belt is the expert in Six Sigma tools and also provides a high level of statistical support to the improvement project teams. A Black Belt is someone with at least 5-6 years of work experience who wants to lead multiple improvement project teams, acts as team facilitator, provides technical support and is effectively the project manager. Attendees will learn how to direct Six Sigma projects and obtain the maximum improvements for the techniques and skills covered in the class. This class requires an improvement project as part of the class. The two weeks* of training are separated by a month or more to allow for conducting that project.

Learning Objectives

- Benefits of Six Sigma overview
- Role of the Black Belt
- Continuous improvement
- Voices of the customer
- Process strategy
- DMAIC methodology
- Quality function deployment
- Project selection and charter
- Goals and deliverables
- Creating the atmosphere for change
- Process flow charting and SIPOC
- Customer requirements
- Define workshop parameters
- Probability and statistics
- Probability distributions
- Problem solving tools
- Data collection
- Statistical sampling
- Metrics
- Process capability analysis
- Measure workshop outcomes

Topics & Content

- Multi-variate data analysis
- Correction and regression
- Estimation
- Confidence intervals
- Hypothesis testing
- Analysis of Variance (ANOVA)
- Analyze workshop
- Developing solution approaches
- Failure mode and effect analysis
- Error proofing
- Design of Experiments (DOE)
- Taguchi experiments
- Improve workshop
- Theory of process control
- Use of Shewhart control charts (SPC)
- Interpretation of control charts
- Advanced control charts

Course Information

Duration*

10 days delivered in two 5-day sessions
Online over several weeks is also available

Audience

Those responsible for leading Six Sigma projects.



“Not an easy course, but full of applicable knowledge, tools and techniques that are used throughout the Six Sigma process.”