TRAINING

Function: Trans/Ops

Product: Green/Black Belt 2+2

Green + Black: The New Colors of Performance Improvement

Key Topic: DMAIC Roadmap

- **Define:** Identifying needs, project chartering, team formation and leading a project
- **Measure:** Mapping tools, understanding current state, risk assessment, metrics and measures, basic statistics, Minitab and data, measurement systems validation, passive data study preparation and statistical process control
- **Analyze:** Hypotheses, making comparisons (to a standard, one-one, multiple) and testing relationships
- **Improve & Control:** 5S, mistake proofing, visual management, control methods, SPC and validating results

Duration:
Green Belt:
Two (2) weeks over two (2) months
Black Belt:
Four (4) weeks over four (4) months

Participants spend time between classes developing their projects.

ROI:
Green Belt project results usually range from $50,000 to $500,000 in savings or increased revenue. Typical project durations: few weeks to a few months.

Black Belt project results usually range from $100,000 to $1,000,000 in savings or increased revenue. Typical project durations: 3 to 5 months.

Materials:
SBTI provides bound copies of training materials along with materials matching the course delivery to each participant.

Statistical Software:
SBTI will provide each participants with the latest version of Minitab on a 5-month demonstration license.

Unique in the industry, SBTI has developed a training model that allows clients to develop their corps of Lean Sigma project leaders while creating an environment where Black Belts and Green Belts begin to build a strong working relationship. We call it **Lean Sigma Green/Black Belt 2+2™**. In this training model, the first two weeks are a combination of Green Belt and Black Belt candidates studying a shared curriculum. Candidates wishing to go on to the Black Belt level will attend the second two weeks of the model.

Students will learn how to apply Lean to reduce waste and Six Sigma to eliminate defects and minimize variation, all integrated within the proven DMAIC roadmap. For both Green Belts and Black Belts, training is action-oriented: Simulations, experiential training, team projects and case studies give students a hands-on learning experience.

Lean Sigma Green/Black Belt 2+2™

Weeks 1 and 2
Lean Sigma Green Belt Level

Through training and dynamic exercises, Green Belts will learn the key Lean Sigma tools and the DMAIC roadmap. Under the leadership of either a Black Belt or a Master Black Belt, they support of the overall program in achieving results. Green Belts take responsibilities for smaller projects, utilizing an in-depth understanding of the key Lean Sigma tools and measurement systems knowledge.

Outcome:

- Understanding of the methodology and Lean Sigma Green Belt tools
- Ability to deliver project results within a Transactional or Operations process
- Project leaders who can assess processes and identify and prioritize optimal projects
- Project leaders who will bring new Lean Sigma skills back to their work areas

Who Should Attend:
The right candidate for this position is someone with good communication skills and who works well in a team structure.

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Weeks 3 and 4
Lean Sigma Black Belt Level

Black Belts have a deeper set of technical skills than Green Belts and are given a larger Lean Sigma tool kit within the DMAIC roadmap. Black Belts often act as change agents for the organization, leading larger scoped, more complex projects, with cross-functional boundaries, including both Operational and Administrative processes. They manage the activities of the Green Belts within projects they are leading.

Outcome:

- Understanding of the process and Lean Sigma Black Belt tools
- Ability to deliver project results within and across processes
- Project leaders who can lead process improvement teams and projects to breakthrough results

Who Should Attend:
Those who are seen as future business leaders, Department Directors assigned full time to Process Improvement, Green Belts who want to lead more complex, inter-departmental/divisional projects.

SBTI®

TRAINING

Function: Transactional

Product: Green Belt

The New Colors of Performance Improvement: LSS Green/Black Belt 2+2

Phase	Topic	Green Belt (Week 1-2) Elements	Black Belt (Week 3-4) Elements
Introduction	Lean Sigma Introduction	Expectations & Roles, Lean Sigma Overview, Process Improvement Simulation	Lean Sigma Roadmap Review (via Case Study), Process Improvement Simulation
Define	Initiate the Project	Charter, Team, Meeting Management	Project Management
	Define the Process	Processes in General, SIPOC, High-Level Maps	
	Customer Requirements	Determining Internal Customer Requirements - Brainstorming, Murphy's Analysis, Affinity Diagramming, Discussion Guide, Customer Matrix, Interviewing, Basic Survey Ideas, Customer Requirements Tree	Determining External Customer Requirements – Advanced Survey Techniques
	Project Metrics	Creating & Measuring, Standard OPerational Definitions	Measurement Systems Analysis (e.g., Change Capture)
Measure	Understanding the Process	Detailed Value Stream Maps, Input/Output Charts, Swim lane Maps, Spaghetti Maps	Advanced Value Stream Maps
	Managing Data	Introduction to Statistical Software, Data, Graphs	
	Measuring Current Performance	Control Charts, Capability	Advanced Control Charts, Capability Analysis
Analyze	Priooritizing X's	C&E Matrix, FMEA, Multivari Studies Overview (Setting Up Hypotheses, Making Comparisons, Testing Relations)	Multiple Analysis of Variance, Residuals Analysis
	Understanding Demand, Capability, Flow and Value	Demand Segmentation/Profiles, Capacity Analysis, Value Analysis, Takt, Spaghetti Maps, Flow Analysis, Multicycle Analysis	Lean Assessment
Improve	Verify Critical Inputs Using Planned Experiments	Intro to Design of Experiments (DOE)	Full Factorial, Fractional Factorial, Response Surface, Attribute Response DOE, Multiple Response Optimization, Blocking
	Design Improvements	Process (e.g., Value Analysis, Spaghetti Analysis, & Quick Change Over), Standard Work, Workplace Organization	Implementing Lean (applied to Process Improvement Simulation)
	Implementing Improvements	Planning, Piloting, Actual Implementation, 5S	Change Management
Control	Finalize Control System	Control Plans, Statistical Process Control	Mistake Proofing
	Validate Improvements	Statistical Testing	Performance to Takt, Standard Work

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123 N. Edward Gary, 2nd Floor, San Marcos, TX 78666 ■ 888.752.7070 ■ sbtionline.com ■ info@sbtimail.com

From Start To Breakthrough™