

▶ Lean Six Sigma Black Belt

Comprehensive and challenging training that builds successful practitioners.



Black Belts are a critical component of every Lean Six Sigma program. They are change agents and leaders, project managers and problem solvers. Often the best and the brightest employees of an organization, Black Belts work full-time to solve chronic problems that plague company performance. Because they can have such a profound impact on a deployment and ultimately drive a company's success, it is critical that Black Belts receive comprehensive and challenging training.

Program Description

BMGI's Lean Six Sigma Black Belt program is focused on building competent, data-driven practitioners who have the skills to execute complex projects and lead organizational change. This program has a dual focus on Lean and Six Sigma, giving students the critical knowledge to lead a variety of project types. The combination of waste-reducing Lean tools with statistically-sound Six Sigma techniques gives students the ability to drive organizational change effectively and ensure both quick wins and long-term, high-yield success.

Students are provided with a thorough education, including how to select the right approach for a given project, and how to properly define, scope, lead and execute projects. The course also includes change leadership skills training, giving students the added edge they need to effectively manage, support and motivate teams to achieve their desired goals.

BMGI combines lectures with experiential learning exercises to maximize student comprehension. Throughout training, each candidate works on an actual business issue and applies the skills taught in the classroom to this real-world project. The program is technically challenging to ensure that all graduates learn how to implement solutions that produce financial results.

Program Highlights

- ❑ BMGI's instructors are regarded as some of the best Lean Six Sigma trainers in the world. These Master Black Belts have an average of ten years experience leading successful Lean Six Sigma projects inside major corporations.
- ❑ Unlike other Black Belt training programs, BMGI dedicates multiple days to the project scoping and project definition phases of Lean Six Sigma. The program also includes Change Leadership training to develop the student's leadership skills when working with Lean Six Sigma project teams.
- ❑ This program was designed by the same experts behind *The Complete Idiot's Guide to Lean Six Sigma* (AlphaBooks, 2007), a top seller in the industry that explains Lean Six Sigma concepts in a comprehensible and accessible way.



"BMGI's training and materials are the best we have found."

- Joe Gliksman
Master Black Belt
Mosaic

KEY LEARNING OUTCOMES

On completion of this course participants will be able to:

- ❑ Understand their role in the Lean Six Sigma community.
- ❑ Apply Lean concepts such as 5S, waste reduction, Process Mapping, Value Stream Mapping and mistake proofing.
- ❑ Use the DMAIC methodology to scope, define and lead projects.
- ❑ Apply DMAIC to business issues and be able to transition projects from phase to phase.
- ❑ Apply statistical analysis to determine the relationship between key inputs and process outputs.
- ❑ Effectively manage team dynamics and understand how to work with multiple levels of leadership to remove barriers and achieve project success.
- ❑ Close projects and hand over control to process owners.
- ❑ Present projects to instructors, peers and managers.



Lean Six Sigma Black Belt

Program Specifics

Who Should Attend: Anyone desiring the skills of a Lean Six Sigma Black Belt. Previous statistical experience is helpful but not required.

Course Length: 25 days over 5 months

Course Includes:

- Certification exams

Course Requirements:

- Laptop with Microsoft Office
- Minitab software

Certification Requirements: Successful completion of course, assignments, quizzes, exams and a process improvement project assessed and approved by a BMGI Master Consultant.

Program Agenda

► **Week 1: Define Phase**

- Introduction to Lean Six Sigma
- Lean Six Sigma Roles & Responsibilities
- Methodologies
- LSS Concepts & Metrics
- Introduction to Change Leadership
- Simulation
- Project Charters
- Basic Statistics
- Intro to Minitab
- Define As Is - Review

► **Week 2: Measure Phase**

- Project Review
- Introduction to Measure & DMAIC Review
- Process Flow Diagrams
- Eight Elements of Waste
- Identification of Value
- Define As Is State
- Measurement System Analysis
- Data Collection Methods
- Stability Analysis
- Capability Analysis
- Simulation

► **Week 3: Analyze Phase**

- Analyze Phase Roadmap
- C&E Matrix
- FMEA
- Flow
- Graphical Techniques
- Correlation/Linear Regression
- Central Limit Theorem
- Confidence Intervals
- Hypothesis Testing
- Sigma Testing
- Means Testing

- Proportions Testing
- Contingency Tables
- Sample Size Selection
- One Way ANOVA
- Project Review

► **Week 4: Improve Phase**

- Project Review
- Improve Phase Roadmap
- Generate and Evaluate Possible Solutions
- Future State Value Stream Map
- DOE Introduction
- Full Factorials
- 2K Factorial Experiments
- Simulation Demonstrations
- Fractional Factorials
- Randomized Block Design
- Catapult Exercise
- Attribute DOE
- Intro to Logistic Regression
- Kanban
- Mistake Proofing
- Implementation Planning

► **Week 5: Control Phase**

- Project Review
- Advanced Regression (Transactional BB)
- DOE Review (Manufacturing BB)
- Multiple Regression (Manufacturing BB)
- Response Surface Design (Manufacturing BB)
- EVOP / PLEX (Manufacturing BB)
- Introduction to Control
- Black Belt as Pioneers
- Control Methods
- Project Closure Process
- Introduction to SPC
- Variable SPC Techniques
- Attribute SPC
- BMGI's Wizard

"BMGI's curriculum is very comprehensive. It gives you a solid foundation from which to go out and work projects and be successful."

– Whitney Montanya
Master Black Belt
Cardinal Health



83C Mittal Court
Nariman Point
Mumbai 400 021
India

About BMGI?

Breakthrough Management Group International (BMGI), a global consulting firm, partners organizations to transform their business performance with a strong focus on delivering results. Today, BMGI is recognized as the world leader in harnessing the power of cutting edge techniques in the area of Innovation, Strategy, Problem Solving and Business Transformation for achieving tangible business results.

Headquartered in the US, BMGI has developed a loyal clientele across the globe. BMGI has partnered with organizations in various stages of their business life cycles and has delivered cumulative benefits of several billion dollars to its clients with an ROI of 5:1 to 20:1. In India, BMGI is located in Mumbai.

Why BMGI?

BMGI has provided training to thousands of professionals across diverse sectors, empowering esteemed corporations in India and around the globe. BMGI's Green Belt certification sets the standard for excellence in professional development, trusted by top-tier companies worldwide to drive innovation and operational success.



Solve Problems

Deliver Results

Be a Leader

 www.bmgindia.com

 info@bmgindia.com



BMGI
Unlocking Potential Delivering Results