

## Operational ToolMaster

Take DMAIC understanding to a new level with advanced tools and knowledge.

ToolMaster training is designed to provide Six Sigma practitioners with a mastery of DMAIC tools. This is an advanced class that is focused on helping participants learn how to apply Six Sigma techniques in unique situations. ToolMaster is a critical component to helping students take their knowledge of DMAIC to a master's level. This is one of nine electives that are part of BMGI's Master Black Belt program.



### Course Description

BMGI's five-day Operational ToolMaster course integrates a review of traditional Six Sigma tools along with instruction on invaluable advanced topics that are frequently asked about. In this hands-on class, participants will achieve a level of proficiency and understanding that will take them well beyond their peers and enable them to solve previously unsolvable problems.

Tools such as destructive measurement system analysis, non-normality, non-parametric testing, DOE for attribute data, DOE for sigma reduction and others are introduced in the course.

This program is ideal for practicing Black Belts and Master Black Belts who have the desire or need to extend their knowledge and problem-solving capability. It is also a great preparatory workshop for potential Six Sigma instructors. In addition, any Black Belt or Master Black Belt candidate who is responsible for training, mentoring or supporting other Six Sigma Belts should attend.

Class participants typically come from a variety of backgrounds, industries and skill levels. Thus, a key component of the course is having students share their unique learning experiences from their organization during the course. During the last hour of each day, participants present best practices and/or relevant case studies they have experienced on their own Six Sigma journey.

### Course Specifics

**Who Should Attend:** Recommended for MBB candidates and Black Belts that have completed at least one Six Sigma project. Appropriate for some Green Belts.

**Course Length:** Five (5) consecutive days (36 hours of instruction).

**Course Requirements:** Participants need a laptop computer running Minitab.

**CEUs:** BMGI is authorized by IACET to offer 3.6 CEUs for this program.

### Course Agenda

The Operational ToolMaster class is suitable for individuals in all manufacturing or operational industries. During the last two days of the course, agenda topics can be customized based on the industries represented and participant needs. In addition to the agenda topics (see reverse), instructors integrate homework assignments and review, along with extensive participant sharing sessions each day.

"I am always impressed with BMGI's Master Black Belts. Not only do they know their stuff, they are a pleasure to work with."

— Charlie Steele  
Project Manager  
Graphic Packaging

### KEY LEARNING OUTCOMES

On completion of this course participants will be able to:

- Apply advanced DMAIC topics to unique real-world problems.
- Analyze non-normal data to drive decision making.
- Calculate capability metrics for non-normal circumstances.
- Utilize advanced ANOVA techniques to qualify destructive measurement systems.
- Investigate important non-traditional scenarios for the application of designed experiments (DOE).

## ▶ Operational ToolMaster

### Course Agenda

- ▶ **Day 1**
  - ❑ Non-Normality Causes
  - ❑ Non-Normality Solutions
  - ❑ Nonparametric Testing
  - ❑ Best Practices
- ▶ **Day 2**
  - ❑ Estimating Process Capability
  - ❑ DOE Method Review
  - ❑ Best Practices
- ▶ **Day 3**
  - ❑ Advanced RSM
  - ❑ Mixture Designs
  - ❑ Fixed vs. Random Factor Designs
  - ❑ Best Practices
- ▶ **Day 4**
  - ❑ Nested Designs and Split Plot Designs
  - ❑ Advanced Topics in MSA
  - ❑ DOE for Variation Reduction
  - ❑ Covariates in DOE
  - ❑ Best Practices
- ▶ **Optional Topics**
  - ❑ Contingency Tables
  - ❑ Sample Size Revisited
  - ❑ Taguchi Linear Graphs
  - ❑ DOE for Robustness
  - ❑ Principle Components
  - ❑ Survey of Probability Distributions
  - ❑ More on Modeling (Adv. Regression)
  - ❑ Fold-Over in DOE

BMGI holds this class regularly in cities around the world.

Classes can also be scheduled on-site for groups of six or more.

Curriculum is available for licensing.



USA Headquarters  
1921 Corporate Center Cir.  
Longmont, CO 80501

1-800-467-4462  
+1 303-827-0010  
MoreInfo@BMGI.com  
www.BMGI.com