

# Six Sigma Master Black Belt Development from SixSigma.us

*“No more putting those  
difficult questions into the  
parking lot”*

“Best physical explanation of  
Design Experiments I have  
ever heard” GE Certified MBB

“Instructor was able to convert  
the knowledge to real world  
examples”

“Instructor is able to answer  
ALL questions”

“Teaches by example”

“Instructor knows how to teach  
adults”

“While some instructors are  
just entertainers, this instruc-  
tor is a teacher”

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**SixSigma.us** has developed and delivered a two week Master Black Belt program focusing on advanced Six Sigma statistical methods used in Six Sigma projects.

In addition to typical Black Belt tools, new tools will be covered in areas such as study of variation, multi-vari experiments, nonparametric analysis, destructive testing, handling attribute responses (far beyond Freeman-Tukey), practical experimentation, optimization experiments, handling multi-response experiments, distributional analysis, advanced regression methods, advanced SPC methods and have fun while doing all this!

We will start out by dissecting the Six Sigma Chartering Process and reviewing different Black Belt programs. The core curriculum was developed to enhance the statistical expertise of certified Black Belts keeping in mind the tools used on a majority of Six Sigma projects. At the beginning of each topic is a detailed review of the must knows from Black Belt level material. One result of building the Master Black Belt curriculum from the Black Belt material is to create a deeper understanding of the DMAIC roadmap. In addition, increasing the knowledge base of statistical methods will assist future Master Black Belts to become better leaders of four week Black Belt programs. After these two weeks Black Belts will be able to handle those difficult questions in a straight forward manner and not have to "Let's put that question in the parking lot".

Clearly each Master Black Belt program must include material beyond statistical methods. It has been our experience at SixSigma.us that most organizations already have expertise in teaming, leadership, presentation skills, finance, etc.

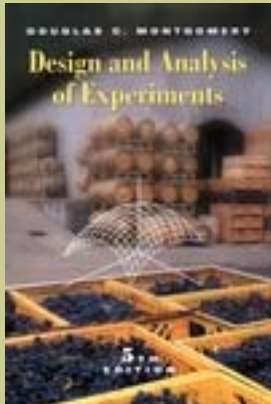
We will be happy to work with you to develop your Black Belts and your Master Black Belt program. We do offer a train-the-trainer live program. This option combined with responsible license fees for Green and Yellow material can move your organization closer to self-sufficiency.

Contact us to discuss delivery for your Master Black Belt Candidates.

Master Black Belt certification is geared toward individuals and companies wanting the skills to train other individuals in Six Sigma philosophies. It also allows individuals to perform the highest level of Six Sigma projects and implementation.

# Master Black Belt Agenda

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## Creature Features

- Coffee service
- Lite lunch served at most public locations
- Professionally printed **Color** Laser student notebooks
- Fun and exciting exercises
- Relaxed learning atmosphere
- Certification of training after completion of training
- MBB Certification requires project experience
- On-site Consulting Support at a discounted rate
- Train-the-Trainer Live program to assist you teaching your first courses
- Discounted license fee for Green Belt and Yellow Belt material

### Week 1 Six Sigma Master Black Belt Agenda

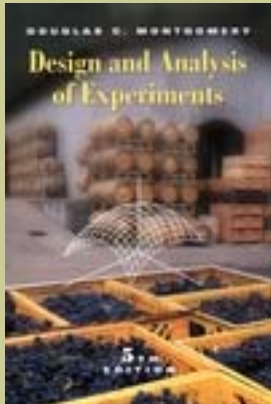
<ul style="list-style-type: none"> <li>• Master Black Belt Body of Knowledge</li> <li>• Six Sigma as a Business Strategy</li> <li>• DMAIC Roadmap and Project Coaching</li> <li>• Variation and Variance Components</li> <li>• Project Management and Selection</li> <li>• Business Process Scorecards</li> <li>• Advanced Control Charts</li> <li>• Variance Components with Control Charts</li> </ul>	<ul style="list-style-type: none"> <li>• MSA Review with Destructive</li> <li>• Advanced Attribute MSA</li> <li>• Kappa MSA</li> <li>• Sampling Revisited</li> <li>• Distributional Analysis including Weibull</li> <li>• Minitab 14 Tricks and Tips</li> <li>• Non-Parametric Analysis</li> <li>• Regression Review and Non-Linear Models</li> </ul>
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### Week 2 Six Sigma Master Black Belt Agenda

<ul style="list-style-type: none"> <li>• Regression Diagnostics</li> <li>• Best Subsets Regression</li> <li>• Collinearity and Regression</li> <li>• Modeling Qualitative Variables</li> <li>• Validating Models</li> <li>• Fractional-Factorial Review</li> <li>• Blocking and Design of Experiments</li> <li>• Sequential Experimentation</li> <li>• Foldover Designs</li> </ul>	<ul style="list-style-type: none"> <li>• Plackett Burman Designs</li> <li>• Attribute Response Methods</li> <li>• Optional Integration Lean Overview</li> <li>• Optimization Designs</li> <li>• Multiple Response Optimization</li> <li>• Optional Formulation Designs</li> <li>• Integrating Robust Experiments</li> <li>• Experimental Planning</li> <li>• MBB Presentations</li> </ul>
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# Master Black Belt Prerequisites & Learning Outcomes

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## Master Black Belt Prerequisites

- Black Belt Certified
- Be able to provide a copy of Black Belt Certificate
- You must have led or mentored at least 10 projects
- At least one project must be in detail
- All projects do not need to be DMAIC
- All other projects must be listed with information that includes, who, what, when, and where
- You must have delivered at least 40 hours of some type of training
- We will need evidence that you have taken a leadership or other type of soft skills training for at least one week
- Complete our two week Master Black Belt training program

The instructor will schedule an in-depth interview with each student to evaluate the required elements and knowledge. After the interview, the instructor will recommend Master Black Belt certification, if the student meets all of the criteria. CEU and PDU credits will be provided to students after successfully completing the training and required exam. In addition, attendees must attend all training and participate in all classroom exercises. If a student misses more than one day of training, make up work must be completed before the final exam may be taken and a training certificate, CEU's or PDU's will be issued at this time. Individuals interested in receiving PDU's or CEU's must pass a comprehensive online exam.

## Master Black Belt Learning Outcomes

**After attending this training, participants will be able to:**

- Perform higher level Factorial Experiments
- Explain the concepts and use high levels of statistical testing
- Use various charts to analyze processes
- Use Minitab to create charts, graphs, and plot maps
- 60 PDU's will be awarded for successful completion of the two week Master Black Belt training and final exam.
- 6.8 CEU's will be awarded for successful completion of the two week Master Black Belt training and final exam.