

GBMP Six Sigma Black Belt Certification Program

THIS SIX SIGMA COURSE FROM GBMP IS AN UP GRADE TO THE BLACK BELT LEVEL FOR THOSE WHO HAVE COMPLETED GBMP GREEN BELT CERTIFICATION. THE 8-DAY TRAINING PROGRAM BRINGS THE STUDENT'S SKILLS UP TO BLACK BELT STATUS IN EACH OF THE SIX SIGMA "ROAD MAP" STEPS: DEFINE – MEASURE – ANALYZE – IMPROVE AND CONTROL.

Overview: Both instruction and hands-on training ("tacit" learning) is provided as attendees are required to complete a "work life" project during the program. Because we understand the difficulty in freeing up key resources and personnel for this kind of training, we conduct this course one day a week for 8 consecutive weeks. This allows time for attendees to apply the DMAIC skills and tools as they are acquired to their projects. Class exercises are also designed to include work on these projects where possible. further, this course has been designed to compliment and interact with GBMP Lean Manufacturing training wherever appropriate. The end result will be that the participant will acquire a complete "tool box" for Continuous Improvement, Variation Reduction and total Six Sigma performance.

After taking this class attendees will be able to:

- ✓ Fully understand Six Sigma Variation Reduction methodology.
- ✓ Apply the DMAIC "road map" and methodology to everyday work problems.
- ✓ Select, define and lead Six Sigma cross functional teams and team projects to completion.
- ✓ Be proactive as key change agents for Continuous Improvement.
- ✓ Act as a mentor to others in applying the Six Sigma principles.
- ✓ Approach their everyday work life with a new "tool box" of statistical analysis and variation reduction tools.

Who should attend? This 8-day course is appropriate for all disciplines within the organization. GBMP Green Belt certification (or the equivalent) is a prerequisite. Some understanding of college entry level math is beneficial but not required. This course is especially relevant for technically oriented employees in manufacturing environments but can also be effective for those in transactional and service capacities such as Material Control, IT, Finance, etc.

Time Commitment? 64 hours

Course Outline:

- Refresher session reviewing basic Green Belt skills
- Project selection and definition
- Project Review – (Define)
- Analysis of Variance (ANOVA) & Multi-Vari Studies
- Team building skills and leadership
- Planning & Managing DOE
- Full Factorial, Fractional & 2-k Factorial Experiments
- SPC – Attribute Data
- Measurement Systems Analysis including Attributes
- Developing Control Plans and proper sampling techniques
- Combining Lean techniques (TPS) and Six Sigma
- Policy Deployment – the "X" Matrix
- Change Management – creating a new culture.
- Project summary presentations



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