

# Manufacturing Excellence With Six Sigma

Elevate quality, amplify efficiency, and slash costs. Seize a competitive edge, delight customers, and fuel continuous improvement. Choose Six Sigma now and join the ranks of elite problem-solvers.

## Who Should Attend

These courses are ideal for: senior level decision makers, general managers, supervisors, group leaders, quality managers, engineers and technicians, process engineers, and any discipline that wants to apply the Six Sigma methodology to eliminate waste, reduce inventory, improve processes, increase throughput and improve bottom-line financial results.

## About the Instructor

### Richard Titus, Jr., Ph.D. | Titus Consulting

Richard Titus, Ph.D., is a Master Black Belt who spent nearly 20 years at Ingersoll-Rand in a variety of positions including operations management, IT, materials management, and manufacturing and project management among others. Dr. Titus is certified as a Black Belt and Master Black Belt by Six Sigma Qualtec where he also received his Lean training.

Rich received his BS in industrial engineering and MS in manufacturing systems engineering from Lehigh University where he has been a lecturer and adjunct faculty member since 2000. In 2019, he earned his Ph.D. in industrial engineering from Penn State University focusing his research on supplier selection.



Dr. Titus has supported over 350 Lean Six Sigma projects in over 70 companies resulting in more than \$60 million in real savings.

- All sessions will be held at MRC's training center.
- Full Minitab license is required and is not included in the course fee. Current Minitab pricing \$1,995 annual license fee + PA sales tax, but subject to change.
- Participants must attend all training dates because each training sessions builds upon the previous session. Any missed dates are the responsibility of the student to review materials prior to the next class.
- MRC's training programs can be customized to your company's specific needs and offered at your facility using "Learn and Experience" methods. To learn more, please contact:  
**Nicole Pierce, Training & Events Coordinator** at (484) 655-4873 or [nicole.pierce@mrcpa.org](mailto:nicole.pierce@mrcpa.org).

# GREEN & BLACK BELT CERTIFICATION SIX SIGMA



**TRANSFORM** YOUR ORGANIZATION WITH MRC'S SIX SIGMA COURSES THAT GO BEYOND JUST EDUCATION AND DRIVE **REAL CHANGE** THROUGH PROJECT **IMPLEMENTATION**.

**Bridge the gap to practical implementation.** This is not your ordinary training course. Most Six Sigma courses seek to educate. Only MRC trains and assists you in the actual implementation of your project.

**Case studies don't cut it here.** Your Six Sigma project is chosen by you to drive change within a real organizational issue. Successful completion means you are improving product quality, enhancing customer service and saving your company money.

**Project Mentoring is expected, not optional.** The instructor goes above and beyond to ensure you are successful. Course price includes up to four individualized onsite project mentoring meetings. Mentoring by a Master Black Belt helps ensure a solid ROI on your first project.

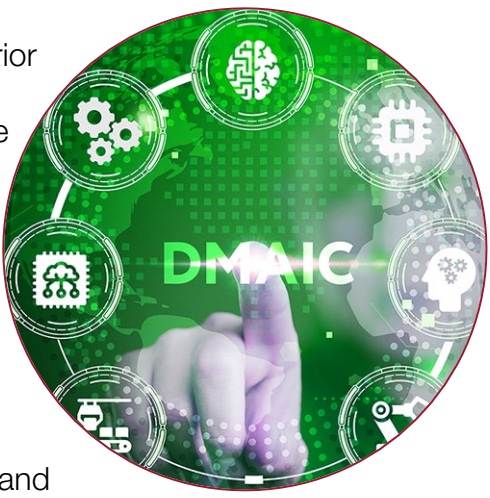
# Green Belt Certification

Gain a solid foundation in Six Sigma methodologies and tools, allowing you to actively contribute to process improvement projects.

## Program Overview and Objectives

Six Sigma Green Belt Certification is designed for individuals with little or no prior experience with Six Sigma methodologies. This course is considered a “Dark Green” belt as it emphasizes statistical tools to improve performance and have the goals “stick.” Objectives include:

- Demonstrate the DMAIC methodology
- Document to show progress and results
- Select and apply tools
- Collect and analyze data



## Program Description

This Six Sigma Green Belt Certification course consists of 10 classroom days and 4 individualized onsite mentoring sessions. It will provide a comprehensive overview of Six Sigma concepts, history, roles, implementation, and Green Belt statistical tools.

A core part of Six Sigma Green Belt Training is:

- Process Flowcharting
- Process Capability
- Control Charts
- Measurement Systems Analysis (Gage R&R)
- Failure Mode and Effects Analysis (FMEA)
- Correlation and Regression
- ANOVA
- Analysis of Variance
- Multiple Regression
- Hypothesis Testing
- Goodness of Fit Testing
- Inferential Statistics
- Distributions and Statistical Processes
- Cost Analysis and Justification
- Introduction to Design of Experiments

## Benefits

After completing this course, participants will be able to create control charts, process maps, and control plans to describe Six Sigma roles within an organization, use statistical tests to improve processes, use Minitab to complete statistical analysis, and define a Six Sigma project. Typically, Green Belt projects save at least \$25k to \$50k in cost savings in process improvement.

Learn more about Green Belt Certification and view our current schedule:

[mrcpa.org/green](http://mrcpa.org/green)



# Black Belt Certification

Invest in your professional development and join the ranks of elite problem-solvers with Six Sigma Black Belt Training.

## Program Overview and Objectives

Six Sigma Black Belt includes the first 10 days of Green Belt, plus 7 days of Black Belt material. This format is designed to support companies sending multiple participants to training, improving synergy and shared learning within the organization. In addition to what is taught during the Green Belt days, the last 7 days of Black Belt training will focus on:

- Advanced Regression and ANOVA
- Advanced Capability
- Design of Experiments (DOE)
- Non-Parametric Distribution(s)
- Logistic Regression



## Program Description

Designed for senior-level decision makers, general managers, supervisors, and group leaders to help improve business processes and sustain quality improvements.

- Hypothesis Testing of Non-Normal Data
- Advanced Multiple Linear Regression
- Correlation
- Logistic Regression
- Design of Experiments (DOE)
- Full and Fractional DOE
- Noise and Variation Reduction in DOE
- Improve and Control Phase Review
- Advanced Capability Analysis
- DOE Split Plot Designs
- DOE Screening Designs

## Benefits

After successfully completing the Six Sigma Black Belt course participants will be able to utilize multiple regression, determine recommended DOE sample size, perform and verify results for designed experiments. Typically, Black Belt projects save \$50k to \$100k in cost savings in process improvement.

# Black Belt for Green Belts Certification

Take your continuous improvement skills to the next level with MRC’s Black Belt for Green Belts\* certification pathway. Designed for professionals who have already achieved Green Belt certification, this program develops the advanced analytical, leadership, and project management skills needed to lead high-impact improvement initiatives across the organization.

**\*Prerequisite:** Green Belt Certification. If Green Belt Certification is not through MRC, prior approval from the instructor is required to start this course.

Learn more about Black Belt Certification and view our current schedule:

[mrcpa.org/black](http://mrcpa.org/black)

