



**Grow Exponentially in your Career
Add Value to your Organization**

Be a Lean Six Sigma Certified Professional

Green Belt & Black Belt Certification

Trained and Certified by Chools Consulting Services Pvt Ltd



OVERVIEW

CUT COSTS NOT CORNERS

Six Sigma is a measure of quality that strives for perfection. A disciplined, data driven approach, it eliminates defects in Any process – from manufacturing to transactional and from Product to service.

Of late, the Six Sigma Belts (certified professionals) have become the popular hire for companies around the world. Green and Black Belt training have also become the most popular training options for companies. This new found interest and popularity for six sigma Green & Black Belts comes from the cost efficiency of hiring and training them. Companies save a lot of money training their employees to the Green and Black Belt status and the benefits are tangible.

The importance of Six Sigma has spiraled in the last two decades and is anticipated to maintain its dominance over all other existing quality improvement techniques because it is flexible and can be altered to suit the requirements of new businesses.

Six Sigma focuses on consistent quality improvements until Business processes are fully optimized. As soon as a certain quality level is achieved, the organization shifts gears and starts concentrating on achieving other level of quality. The whole process continues until all the business processes are fully optimized.

Six Sigma concepts and methodologies highlight the use of statistical tools and techniques for improving quality and reducing defects. The dependence on hard facts and figures automatically ensures that decisions have the desired effect on the quality of goods or services and the efficiency of business processes.

When decisions are based solely on gut feelings and Preconceived notions, the decisions may not have the desired effect, especially if the task is to make adjustments in a complex business process. The inherent ability of Six Sigma to produce the desired results has enhanced its importance in today's business world.

Another reason for the ever-growing popularity and Importance of Six Sigma is that it really helps in handling competition, which has increased considerably in today's business world. Business organizations worldwide have realized that in order to beat the competition, they will have to offer better quality products or services to their customers and that too at competitive rates.

Six Sigma enables business organization to achieve greater customer satisfaction and build customer loyalty Having a loyal group of customers is always important for Any business because it ensures a constant flow of revenues even when is a cyclical downturn in the industry.



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LEAN SIX SIGMA – GREEN BELT & BLACK BELT

At Chools Consulting Services, students have an option of undergoing the Green Belt certification before proceeding to the “expert” Black Belt certification. The strength of Six Sigma lies within training people to fit within this varying levels of expertise so that they can better complete specific tasks as a team. The Six Sigma hierarchy consists of different levels of certification ‘belts’ who are responsible for different roles in a company’s Six Sigma projects. Six Sigma Green Belts and Six Sigma Black Belts have the duties of commencing and expanding projects they are working on. Black Belts are the leaders.

GREEN BELT

Project implementation is the job of the Six Sigma Green Belt. Green Belts are the members of the Six Sigma team who are trained to implement Six Sigma projects under the guidance of the Six Sigma Black Belts. They will implement these projects so that they can achieve desired goals

within a company. The implementation of projects is carried out with the other responsibilities of the Six Sigma Green Belt. Green Belts will find that they spend around half of their total work time, on an average, working on and being involved with Six Sigma projects. The Green Belts are aware of all important activities that are being carried out for a project along with the Black Belts.

Green Belts will need to be able to explain the importance of Six Sigma to the company they are working for and the processes within that company. Green Belts will be trained to use various Six Sigma tools that are needed carry out the data collection for validating their measurement system.

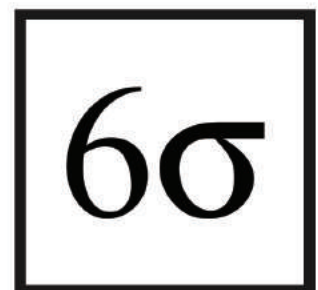
BLACK BELT

Within the Six Sigma hierarchy, Black Belts are the leaders.

The major role of the Six Sigma Black Belt is overseeing teams of Green Belts, who are responsible for most of the actual Six Sigma work within hierarchy. For a Six Sigma student to earn a Black Belt, they must master the Green Belt curriculum as well as show that they have a clear understanding of the more advanced concepts of the Six Sigma methodology.

Six Sigma students aspiring to become Black Belts must also show that they clearly understand the lean enterprise theory and must also show their understanding of the DMAIC paradigm.

Six Sigma Black Belts have the responsibility of overseeing Green Belts, and who can move up to Master Black Belt and beyond from this position. Black Belts will double-check the work of the Green Belts, and may even be able to improve on the overall work of the Green Belts.



LEAN SIX SIGMA BENEFITS

- Universally applicable to all industries and help professionals to eliminate defects within any business process.
- Decision-making in the professional world is accurate when it's based on the Six Sigma process.
- Six Sigma professionals understand the most pressing issues with the organization, how to identify new approaches in troubleshooting and resolving problems, making appropriate decisions on moving forward, and implementing changes within the infrastructure and organization for the best possible results .
- Reduction of unproductive work and leveraging of talent internally to solve problems rather than outsourcing.
- Essential for businesses that need process improvement and change.
- Higher productivity rate and many changes throughout the entire infrastructure of an organization when Six Sigma training is implemented.

CERTIFICATION BENEFITS

▶ SIX SIGMA CERTIFIED PROFESSIONAL TAG WILL GIVE

- Preference over other candidates
- A minimum of 30-40% higher salary for the same position
- Exponential growth in the career
- Most Valuable Employee for an organization
- Industry Wide Knowledge to Better Position yourself for changes during your career

▶ DEMONSTRATES

- A Commitment to Excellence
- An Investment in Themselves
- An Investment in Your Employer's interests
- An Investment in the individual's Career
- A Known Level of proficiency of Quality principles and methods (Theory)

▶ WHAT IT BUYS YOU

- A Competitive Advantage
- Peer Recognition
- Increased Skills and Abilities
- Career Advancement



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GREEN BELT - OUTLINE

The Green Belt course is divided into six modules as design by Chools consulting Services

▶ Module 1

- Six Sigma Concepts and Philosophy
- Metrics: DPU, DPMD, RTY
- Six Sigma Deployment
- Champion, Black Belt and Green Belts
- Selecting projects

▶ Module 2

- Define Stage
- Measure Stage
- Basic Statistics: Concept of Variation, Data Types, Normal, Exponential, Binomial, Poisson distributions, Measures of central tendency – Mean, Median, Mode, Measures of dispersion – Range, Standard deviation, Variance, Central limit Theorem
- Visualization Techniques : Process Mapping, Quality Function Deployment (QFD)
- Measurement System Analysis : Types of Error in Measurement System, R&R for Variable measurement, R&R for Visual Inspection

▶ Module 3

- Analysis Stage
- Data Analysis : Common and Special causes of variation, Control Charts, Xbar and Range Chart, individual and Moving Range Chart, Histogram, P-chart, c-chart, Pareto analysis
- Cause and Effect diagram, Pre-control charts and Paired Comparison
- Design of Experiments (DoE): Multi-Vary chart, Fractional Factorial designs

▶ Module 4

- Improve Stage
- Process Capability
- Advanced Statistics
 - Sampling, Estimation
 - Hypothesis Testing
 - ANOVA
 - Correlation and Regression

▶ Module 5

- Control Stage
- FMEA
- Team Work

▶ Module 6

- Distributions
- Statistical inference & ANOVA
- Measurement Assurance
- SPC
- One-Way ANOVA



BLACK BELT - OUTLINE

▶ STAGE 1 (FUNDAMENTALS)

- Six Sigma Concepts & philosophy
- Metrics: DPU, DPMO, RTY
- Six Sigma Deployment

▶ STAGE 2 (DEFINE & MEASURE)

- Define Stage, Measure Stage
- Basic Statistics
- Concept of Variation, Data Types, Measures of Dispersion, Variance, Central limit Theorem
- Process Mapping, Quality Function Deployment (QFD)

▶ STAGE 3 (ANALYSE)

- Cause and Effect Diagram, Pre-control charts and Paired Comparison
- Design of Experiments (DoE): Multi-Vary Chart, Fractional Factorial designs

▶ STAGE 4 (IMPROVE)

- Process Capability: Cp, Cpk, Pp, Ppk
- Advanced Statistics: Sampling distribution, Estimation, Hypothesis testing, ANOVA

▶ STAGE 5 (CONTROL)

- Control Stage, FMEA, Team Work

▶ STAGE 6 (SIX SIGMA LEADERSHIP)

- Enterprise View
- DMAIC Plus Model

▶ STAGE 7 (ADVANCED DATA ANALYSIS)

- Understanding Variation and Causes
- Strategies to Reduce Variation
- Advanced Statistical Concepts

▶ STAGE 8 (OPTIMIZATION AND ROBUST DESIGN)

- Factorial Designs
- Fractional Factorial Designs
- Taguchi Methods, S/N Ratios

▶ STAGE 9 (DESIGN FOR SIX SIGMA)

- Understanding DFSS
- Voice of the Customer & QFD
- Design of Manufacturability
- System and Design FMEAs

▶ STAGE 10 (LEAN ENTERPRISE)

- Lean Enterprise, Lean Thinking
- 3M, Seven Types of Wastes
- Heijunka, Kanban, Takt Time
- Value Stream Mapping, 5S, TPM
- Continuous Flow Manufacturing

▶ STAGE 11 (CHANGE MANAGEMENT)

- Managing Cultural Change
- Managing Teams
- Facilitation Process and Tools
- Team Dynamics and Performance
- Project Management
- Knowledge Management

▶ STAGE 12

- Distributions
- Statistical Inference
- Measurement Assurance
- SPC, Process Capability

▶ STAGE 13

- Advanced Distributions
- Advanced Statistical Inference
- Advanced Measurement Assurance
- Regression, Multi-Factor ANOVA, SPC
- Project Value, Project Management

GET CERTIFIED

TRAIN @ CHOOOLS AND GAIN ENTRY
INTO AN ELITE CLUB OF
CERTIFIED PROFESSIONALS WORLDWIDE



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Trained and Certified by Chools Consulting Services Pvt Ltd