



Green Belt → **Black Belt**

**Training and Experience for
Six Sigma Green Belts becoming
Six Sigma Black Belts**

**By Sion Weaver
CLSSMBB, CSSBB, CSSGB**

Green Belt → **Black Belt**



The Lean Six Sigma Way

A Pathway to Quality

Once on the path of quality it takes continuing education and professional development, expanding your portfolio of tools. Some people may go into other fields to expand their knowledge, for those who continue in Quality, CSSBB is great certification to work toward.

Note: A motivated individual can go straight to Black Belt. It takes more effort and a longer period of time. Green to Black Belt is a natural progression. We will concentrate on Green going to Black Belt.

Green Belt → Black Belt



**Coming from Green you are
already halfway to Black Belt.**



GBs are already familiar with Lean Six Sigma:

History of Lean, Six Sigma, and Quality Improvement

Six Sigma

DMAIC IDOV DMADV

Six Sigma Tools

FMEA Ishikawa Process Capability

SPC

Control Charts

Lean

Kaizen Events

Lean Tools

Process Flow and Mapping

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Why, what can Lean Six Sigma accomplish?

Lean Six Sigma has made significant impacts in:

Manufacturing

Automotive

Cellular Phones

Business

Management

Office Processes

Software and Hardware

Cellular Switching

Medical Equip.

Government

Logistics

Facilities

Operations

Hospitals and Healthcare

Patient Care

Supply Chain Mgmt

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Who is interested and is engaged in LSS?

ASQ Enterprise Roundtable Members

- | | | |
|---------------------|---|--------------------|
| 3M | DCMA (Defense Contract Management Agency) | Kimberly-Clark |
| Abbott | Deere & Company | Kohler Co. |
| Alcoa | Dow Chemical | Kraft |
| Barclays PLC | DuPont | L-3 |
| Baxter Intl | FedEx | Lockheed Martin |
| Becton Dickinson | Ford Motor Company | Mattel |
| Bechtel | General Electric | Northrop Grumman |
| Boeing | General Motors | Raytheon |
| Booz Allen Hamilton | Genpact | Research in Motion |
| Caterpillar | Goodrich | Siemens |
| Cisco | Hewlett-Packard | TATA Group |
| Coca-Cola | Honeywell International | Textron |
| Cummins | Ingersoll Rand | UnitedHealth Group |
| | Intel Corporation | Xerox |

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ASQ Enterprise Roundtable members are some of the most successful corporations.

Roundtable Members include many pioneers in Quality and Lean Six Sigma. The organizations value ASQ and they value people who strive to better themselves and pursue quality.

Ford

Honeywell

General Electric

Boeing

Ratheon

Xerox

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I know of no more encouraging fact than the unquestionable ability of man to elevate his life by a common endeavor.
Henry David Thoreau

People are generally at the start of their Six Sigma/Quality journey when first working toward Green Belt. A Green Belt is over half way home when starting work toward Black Belt.

Start —————> **Green Belt** —————> Black Belt

Start —————> Black Belt

Green Belt —————> Black Belt



**Be the change you want to see in
the world. Mahatma Gandhi**

**Someone who has been a Green Belt for sometime may be
much higher in their Lean Six Sigma Proficiency.**

**If you are Black Belt trained too, you are moving right
along.**

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Project Leaders

Green Belts may lead Lean Six Sigma projects. This is hands on experience that reinforces the tools you have learned which will add to your knowledge of Six Sigma.

Result oriented projects make improvements for people and bring bottom line results to your organization.

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Black Belt Achievement Formula

Black Belt training to cover the Lean Six Sigma Black Belt Body of Knowledge (BOK).

Complete Lean Six Sigma Projects with verifiable results.

ASQ BB Written Exam Pretest to determine areas to concentrate.

Certification Refresher to improve your level of proficiency.

ASQ Black Belt Certification Exam.

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Experience

When going for ASQ Black Belt certification, you must be able to show you have project experience.

To apply and be accepted to sit for the ASQ CSSBB exam and certification you must have either completed two projects, or completed one project with at least three year prior experience in the ASQ Six Sigma Black Belt Body of Knowledge.

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Experience & Courses

Projects and courses offer good opportunities to gain and reinforce experience and knowledge.

It is important for Green /Black Belts and even Seasoned Belts to take a preparation course to refresh ones experience with the wide range of tools.

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Continuous Practice

Black Belts must undergo training to learn the many tools and methodologies that are applicable to the job.

However, it is the continued practice that reinforces what people learn.

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Helpful Experience

Mentoring other Six Sigma Green Belts or project team members is good experience.

And you get to help people learn while doing so.

Mentoring is excellent learning for both Mentee and Mentor, and is a very rewarding experience.

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Change Agent

The Six Sigma Black Belt:

Is a major organizational change agent

Leads cross-functional and complex projects

Provides training and coaching to GBs and SMEs

Is a technical expert to Project Sponsors

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Motivated Professional

A Black Belt is a professional who leads and champions process and product improvement initiatives in small organizations on up to multinational corporations. A project leader in cross-functional projects in service, industrial, healthcare, manufacturing, or government organizations.

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Multi Talented

The CSSBB is able to focus and work on multiple projects at the same time in leadership roles.

You may have to lead or mentor project teams on location or virtually across the country.

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Force Multiplier

CSSBBs must be able to motivate and evaluate staff, manage projects and human resources, analyze financial situations, determine and evaluate risk and employ knowledge management tools and techniques in resolving organizational challenges.

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People Skills

Soft Skills are a necessity to work with teams and customers. These are the type of skills central to gaining the confidence of workers and buy in from stake holders (your customers and top decision makers).

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Project Works

Black Belts must become used to being a project leader and or mentor.

How do you get used to leading or working on projects- by leading or working on projects.

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Define Phase

Voice of the Customer

Project Charter

SIPOC

Communication Plan

Stakeholder Analysis

Quality Function Deployment

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Define Phase

Voice of the Customer

What are your plans for the new year?

How is your company doing financially and productivity...

How can we help you to be more productive?

Partner with the customer....

Partner with the suppliers....

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Define Phase

Voice of the Customer

This is the key to quality- fulfilling customer needs and wants.

Producing the right things at the right time.

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Define Phase

Project Charter

Problem Statement for products and/or processes

Determine what is in scope

Team Members assigned and their Roles

Sponsor- Process Owner Responsible for Implementation

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ASQ

ADVANCED QUALITY SOCIETY
ADVANCED QUALITY SOCIETY

Define Phase

SIPOC

Suppliers

Inputs

Processes

Outputs

Customers

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Define Phase

Communication Plan

Member	1 st and 3 rd Wednesday	Phone Contact/ Best Times to contact	Email
Mike	Available M/W 1-3	M/W/F 703-555-1212	@mail
Bill	Available T/W/F 11-3	T/TH/F 703-555-1212	@mail

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Exercise for Fun

We have some really talented people here, so for anyone who wants to participate...

Provide the sum of all the numbers from 1 to 100

And show your method

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Measure Phase

Current State Map

Data Collection

Process Observation Form

Pareto

MSA

Capability Analysis

Where you are now

For Data Driven Projects

Collect Data

Current Performance

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Analyze Phase

Critical Xs

Ideal State Map

Where you'd like to be

Ishikawa

Root Cause Analysis

Regression Analysis

Hypothesis Testing

Determining Statistical Difference

ANOVA

Analysis of Variance

5 Y

FMEA DFMEA

Used in Quality Safety Reliability

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Improve Phase

Brain Storming

Force Field Analysis

Ishikawa

Design Of Experiments

Future State Map

Process Capability

Hypothesis Tests

5 S

Needs to be Brain Performing

Team Work Tool

Optimizing

Where you will be

The Improved Capability

Great Way to Improve

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Control Phase

Control Plan

Communication Plan

Training Plan

Statistical Process Control

Project Documentation

Integration into production processes

Metrics & Financial Validation

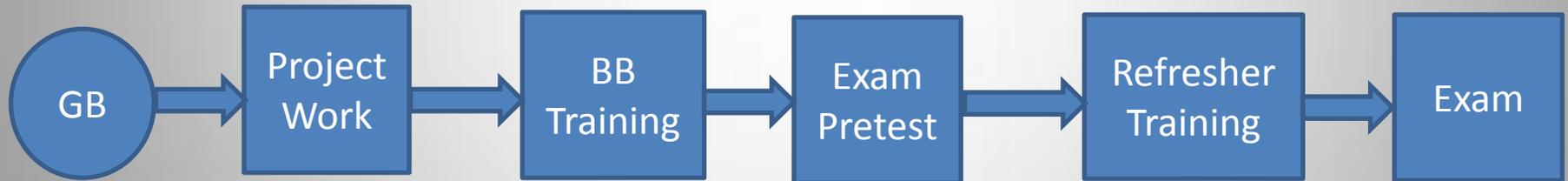
Project Closeout

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Moving Along

The ASQ Practice Exam is great to find out your current readiness for the CSSBB exam.



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CSSBB Pretest

The ASQ Practice Exam is great to find out your current readiness for the CSSBB exam.

Use your reference materials

Use a pencil

Time your pretest

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Refresher Training

**Enterprise Deployment
Process Management
Team Management
Define
Measure Data
Measure Statistics
Analyze
Improve
Control
Design For Six Sigma**

Find your strong and weak areas.

Place emphasis to work on the weak areas while you continue to review your strong areas.

Explore the best references and prepare them in advance.

Work on strategy & timing.

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Study Groups

They can be helpful, being able to discuss and work on knowledge areas. Quality people are involved in Quality. They are some of the most helpful and reliable people I know. ASQ people want to help.

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Certification Exam

Be sure to get plenty of rest the night before the exam
Reference books and other material prepared
Relax- this can be challenging
The most important is to put on a good attitude
Remember that you are prepared

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Related Certifications

Certified Six Sigma Master Black Belt

Certified Quality Engineer

Certified Reliability Engineer

Certified Manager of Quality/Organizational Excellence

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Questions?

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Thank You!

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