



LEAN SIX SIGMA BLACK BELT

COURSE OVERVIEW

We offer the most advanced "Certified Six Sigma Black Belt Course" as per the curriculum outline of The IMC Body of Knowledge and accredited by top international Lean & Six Sigma accreditation bodies.

Course Highlights

- Fundamentals
- Define and Measure
- Analyze
- Six Sigma Leadership
- Advanced Data Analysis
- Optimization and Robust Design
- Design for Six Sigma
- Lean Enterprise
Change Management



LEAN SIX SIGMA BLACK BELT COURSE OVERVIEW

This Black Belt training course is divided into two modules. The first module will teach Lean Six Sigma Yellow Belt, which outlines the main components of Lean Six Sigma. The first module will also cover the Lean Six Sigma Green Belt, which builds upon knowledge acquired at the Yellow Belt level and introduces the Define, Measure, Analyze, Improve and Control (DMAIC) model. The second module will focus on the Black Belt itself.

Ultimately, the Black Belt provides delegates with everything they need to establish themselves as Lean Six Sigma experts. Delegates will be introduced to a variety of tools they can use to analyze and identify where business developments should occur.

The Black Belt produces efficient managers who possess extensive analytical skills, which allow them to determine appropriate resolutions to business problems. By the end of the course, Black Belts will be able to implement DMAIC methodology effectively, and be capable of delivering and managing Lean Six Sigma projects successfully.



COURSE HIGHLIGHTS

This black belt course is carefully designed by domain experts and MBB trainers into 12 focused modules with an aim to equip participants with the knowledge of various techniques and tools using MINITAB PRO 19 (statistical & non-statistical) from the industry point of view to make decisions based on data and facts.

This Six Sigma Black Belt training course will explore the following areas:



FUNDAMENTALS

- 01 – Six Sigma Concepts and Philosophy
- 02 – Metrics: DPU, DPMO, RTY
- 03 – Sigma Deployment
- 04 – Six Sigma Project Selection and MINITAB Orientation
- 05 – Process inputs and outputs
- 06 – Download MINITAB and Initiate MINITAB Practice

DEFINE AND MEASURE

- 01 – Define Stage, Measure
- Stage 02 – Basic Statistics
- 03 – Concept of Variation, Data Types, Measures of dispersion – Range, Standard deviation, Variance, Central Limit Theorem
- 04 – Process Mapping, Quality Function Deployment (QFD)

COURSE HIGHLIGHTS

ANALYZE

01 – Cause and Effect diagram,
Pre-control charts and Paired
comparison

02 – Design of Experiments (DoE):
Multi-Vari chart, Fractional Factorial
designs

IMPROVE

01 – Process Capability: Cp, Cpk, Pp, Ppk

02 – Advanced Statistics: Sampling
distribution, Estimation, Hypothesis
Testing, ANOVA

CONTROL

01 – Control Stage, FMEA, Team Work

SIX SIGMA LEADERSHIP

01 – Enterprise View

02 – DMAIC Plus Model

OPTIMIZATION AND ROBUST DESIGN



DESIGN FOR SIX SIGMA

01 – Understanding DFSS

02 – Voice of the Customer
& QFD

03 – Design of
Manufacturability

04 – System and Design
FMEAs



COURSE HIGHLIGHTS

LEAN ENTERPRISE

- 01 – Lean Enterprise, Lean Thinking
- 02 – 3M, Seven Types of Wastes
- 03 – Heijunka , Kanban ,Tact Time
- 04 – Value Stream Mapping, 5S, TPM
- 05 – Continuous Flow Manufacturing

CHANGE MANAGEMENT

- 01 – Managing Cultural Change Managing Teams
- 02 – Facilitation Process and Tools
- 03 – Team Dynamics and Performance
- 04 – Project Management
- 05 – Knowledge Management

STAGE 12

- 01 – Distributions
- 02 – Statistical Inference & ANOVA
- 03 – Measurement Assurance
- 04 – SPC, Process Capability

MORE YOU WILL GET FROM THE COURSE



Communicate using Six Sigma concepts.

Think about your organization as a collection of processes, with inputs that determine the output.

Relate Six Sigma concepts to the overall business mission and objectives.

Use the concept of a sigma level to **evaluate** the capability of a process or organization.

Understand and apply the five-step DMAIC model as a framework to **organize** process improvement activity.

Employ a wide range of process improvement techniques, including design of experiments, within the DMAIC model.

Recognize the organizational factors that are necessary groundwork for a successful Six Sigma effort.

Employ your Six Sigma skills to lead a successful process improvement project and **deliver** meaningful results to the organization.





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International Management Consultancy an ISO 9001:2015 certified premium Six Sigma, Lean Six Sigma, PMP, and Supply Chain Management training provider, proudly recognized. Accredited by International Association of Six Sigma Certification (IASSC) USA, Council for Six Sigma Certification (CSSC) USA, International Quality Federation (IQF) USA, Abu Dhabi Centre for Technical & Vocational Education and Training (ACTVET) UAE, Continually Profession Development (CPD) UK, PeopleCert Accredited, Authorized Partnership with PECB CANADA, and Axelos Recommended Training Provider. Helping professionals across the industry to develop skills and expertise to get recognition and growth in the corporate world.