

Course Guide + Information



LEAN SIX SIGMA

LEAN SIX SIGMA BLACK TO
MASTER BLACK BELT UPGRADE

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Providing a simple, smart and affordable route
to Lean & Six Sigma training and certification.

CBIS Business
Compliance
and Excellence



About CBIS

CBIS (Comprehensive Business Improvement Solutions), is a boutique training and consulting firm that works collaboratively with business owners and line managers to achieve compliance and excellence by drawing on cross-disciplinary expertise in business improvement frameworks such as Lean and Six Sigma. We are experts in Lean Six Sigma Training, Coaching and Consulting and have worked extensively on a range of business efficiency issues.

At CBIS, we offer Lean & Six Sigma training courses in the various levels from basic to advanced qualifications through different training delivery methods such as Public Classroom or Virtual, Online as well as In-house settings. Our training courses will be delivered under various accreditations listed below.

Our Accreditations





Just a handful of our clients



LEAN SIX SIGMA BLACK TO MASTER BLACK BELT UPGRADE

| Course Overview

This Lean Six Sigma Black Belt to Master Black Belt Upgrade course prepares participants to perform the role of a Lean Six Sigma Master Black Belt. The Lean Six Sigma Black to Master Black Belt Upgrade training materials comprise a comprehensive curriculum covering everything within the Lean Six Sigma Body of Knowledge required to successfully complete Master Black Belt certification. After achieving this qualification, Master Black Belts utilise the extensive acquired DMAIC methodology and the advanced tools during the execution of a project as a coach and consultant, as well as coach and mentor a team of Green Belts and Black Belts.

| Certification

After passing the knowledge exam, participants will be certified as Lean Six Sigma Master Black Belts.

As a bonus, if the participants want to apply their knowledge and complete a project, after successful completion of the Lean Six Sigma Master Black Belt Project Portfolio within 6 months, they will achieve another certificate that includes the project title. A project examination fee of \$1400+GST is payable if applicable.

The certificates will be granted under the Exemplar Global banner according to the ISO 18404 international standard.

| Target Audience

The Lean Six Sigma Black to Master Black Belt Upgrade certification program is perfect for participants who are already Certified Lean Six Sigma Black Belts who want to upgrade their knowledge to become a Lean Six Sigma Master Black Belt.



Duration: 5 full days (9am - 5pm)



What is included

- Pre-course On-line Introduction Video
- Black to Master Black Belt Upgrade Course Material
- Data files for Minitab practices
- Master Black Belt project templates pack to be used for the Lean Six Sigma Project
- Master Black Belt Practice Test
- Master Black Belt Certification Exam
- Master Black Belt Project Portfolio (if applicable)
- Six months project support service (if applicable)
- One-month Minitab exercise support (if applicable)



Prerequisites

A Lean Six Sigma Black Belt Certificate issued by an accredited training service provider is a prerequisite for this course. Without this accreditation, CBIS cannot guarantee the adequacy of the Black Belt training. The Black Belt Body of Knowledge is not covered in detail during this course. Advanced level numeracy and statistical knowledge are required.

 | **Course Outline**
Define Phase

- Creative Thinking and Brainstorming
- Balanced Scorecard (BSC)
- Hoshin Planning
- Project Planning / Project Management
- Communication Skills and Communication Planning
- Project Charter
- Project Measures (Metrics) Incl. Yield,
- Quality Function Deployment (QFD)

Measure Phase

- Different types of Data
- Inferential and descriptive statistics
- Stratification
- Data Collection Plan
- Measurement System Analysis (MSA)
- Accuracy and Precision
- Bias
- Linearity
- Stability
- Repeatability & Reproducibility (G R&R)
- Attribute MSA (KAPPA)
- Destructive Measurement Systems
- Statistical Measures (Mean, Median, Mode, Range, Variance, Standard Deviation, Skewness, Kurtosis)
- Different Types of Variation
- Normal Distribution and Normality
- Data Transformation, Box Cox, Johnson
- Process Capability Indices (Cp, Cpk, Pp, Ppk)
- Short Term and Long Term Sigma Level

Analyse Phase

- Theory of Constraints (TOC)
- Value Stream Map (VSM) – Current State
- Statistical Cause Validation Tools
- Hypothesis Test
- Simple Linear Regression
- Non-Linear Regression
- Multiple Linear Regression
- Logistic Regression

Improve Phase

- Pull and Push Systems
- Batch Flow and Single Piece Flow
- Value Stream Map (VSM) – Future State
- Design of Experiment (DOE)
- Advanced DOE (Taguchi Designs,...)
- Resistance Management and Force Field Analysis
- Change Management
- Motivation and Motivating Others

Control Phase

- Control Plan
- Training Design and Delivery
- Self-Review and Self Development
- Individual and organisational changes
- Coaching
- Statistical Process Control
- Variable Control Charts (Xbar-R, Xbar-S, ...)
- Attribute Control Charts (C chart, P chart, ...)
- Advanced Control Charts (EWMA, CUSUM,...)
- Presentation and Report Writing Skills
- Project Closure
- Additional Topics
 - Design For Six Sigma (DFSS)
 - 8D
 - A3 Report
 - Business Excellency Models

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