Lean Six Sigma®, Black Belt: Certification

Hands-on course of 5 days - 35h
Ref.: BEL - Price 2024: €3 990 (excl. taxes)
The price for the 2025 session dates may be revised

EDUCATIONAL OBJECTIVES
At the end of the training, the trainee will be able to:

Be proficient in the DMAIC model

Be able to select appropriate Lean Six Sigma tools

Know how to carry out a large-scale Lean Six Sigma project

Coach Green Belts

Achieve Black Belt certification

TEACHING METHODS

The course is centered on the 5 phases of the DMAIC model (Define, Measure, Analyse, Improve, Control) based on the case study and for each group.

CASE STUDY
The goals will be attained by creating a case study (Muscle Cars) and using the statistical tool MINITAB.

CERTIFICATION
Training provided in French, with materials in English. The exam is taken on the last day, online and in English. It is 240 minutes (4 hours) with 150 multiple-choice questions.

THE PROGRAMME ──────────

last updated: 06/2022

1) Introduction
- Knowledge test to identify the participants' levels.
- Correcting the knowledge test.
- Overview of the case study.
- Project launch.
- Setting up the production line.
- Launching the assembly line.
- Feedback (each group presents its results).
Case study : *"Muscle Cars" project: Organizing a production line to build two models of cars in as little time as possible, with no defects.*

2) "Define" and "Measure" phases of the DMAIC model
- Estimating the Gap Analysis between actual performance and the customer's goal.
- Creating the "Voice Of Customer" (VOC).
- Turning the VOC into "Critical To Quality" (CTQ).
- Making a SIPOC diagram (Suppliers, Inputs, Processes, Outputs, Customers).
- Creating the project charter.
- Drawing the "As Is" process.
- Feedback (each group presents its results).
Case study : *Applying the "Define" and "Measure" phases to the "Muscle Cars" project.*

3) "Measure" and "Analysis" phases of the DMAIC model
- Creating the Value Stream Map.
- Identifying the steps of the process to be measured.
- Knowing how to calculate the process' performance.

- Retaking the measurements if necessary.
- Using MINITAB (hypothesis testing, regression line, one- and two-way Anova).
- Feedback (each group presents its results).
Case study : Applying the "Measure" and "Analyze" phases to the "Muscle Cars" project.

4) "Analyze", "Improve", and "Control" phases of the DMAIC model
- Finalizing the analysis and finding the Root Cause.
- Finding solutions: Brainstorming, experiment design with MINITAB.
- Creating KPIs and control charts with MINITAB.
- Feedback (each group presents its results).
Case study : Applying the "Analyze", "Improve", and "Control" phases to the "Muscle Cars" project.

5) Preparing to take the IASSC Black Belt exam.
- Review of vocabulary and concepts.
- Mock test (100 questions).
- Correcting the mock test.

DATES

REMOTE CLASS
2024 : 16 Dec

2025 : 27 Jan, 14 Apr, 21 Jul, 27 Oct