

# Lean Six Sigma®, Green Belt: Certification

Hands-on course of 5 days - 35h

Ref.: GLB - Price 2024: €3 390 (excl. taxes)

## TEACHING METHODS

Description of concepts, case studies, and preparing for the test.

Case studies about different phases of the DMAIC approach.

## CERTIFICATION

At the end of this course, the trainees will take the exam for IASSC Certified Lean Six Sigma® Green Belt certification.

## THE PROGRAMME

last updated: 05/2020

### 1) Introduction and reminders

- The Green Belt objectives. The certification process.
- Reminders of the DMAIC process. The Six Sigma fundamentals.
- Reminders of Lean principles. The different types of waste.
- Reminders "Define" and "Measure" phases of the the Yellow Belt perimeter.

### 2) The "Analyze" phase

- The variation models: analysis and multi-variances graph, application cases, interpretation of analytical data.
- Statistical inference: central limit theorem, standard error, ...
- Hypothesis testing introduction : objectives, concept of central tendency, types of hypothesis testing, ...
- Hypothesis testing with normal data: sample size, various hypothesis tests on averages, analysis, ...
- Hypothesis testing with non-normal data: equal variance data, medians, proportions tests, contingency.

### 3) The "Improve" phase

- Regression modeling process.
- Advanced process modeling.
- Linear and non-linear regression. Multiple linear regression (MLR).
- Introduction to the experience design.
- How to describe the differences between the physical model and experimental design(DOE: Design Of Experiment).
- Explaining OFAT experimentation and weaknesses.

### 4) The "Control" phase

- Reminders: Control and Lean tools, 5S, Kanban, Poke-Yoke, ...
- Reminders: Control Plan Six Sigma, cost-benefit analysis, ...
- Advanced experimentation: using the results of a DOE to determine the degree of improvement of the process, ...
- Capacity analysis: the ability of the process, selecting the method of analysis, interpretation, ...
- Defect control: prevention methods, tools and techniques, ...
- SPC presentation : Statistical Process Control.

## TRAINER QUALIFICATIONS

The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

## ASSESSMENT TERMS

The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more. Participants also complete a placement test before and after the course to measure the skills they've developed.

## TEACHING AIDS AND TECHNICAL RESOURCES

- The main teaching aids and instructional methods used in the training are audiovisual aids, documentation and course material, hands-on application exercises and corrected exercises for practical training courses, case studies and coverage of real cases for training seminars.
- At the end of each course or seminar, ORSYS provides participants with a course evaluation questionnaire that is analysed by our instructional teams.
- A check-in sheet for each half-day of attendance is provided at the end of the training, along with a course completion certificate if the trainee attended the entire session.

## TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training.

## ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you need special accessibility accommodations? Contact Mrs. Fosse, Disability Manager, at psh-accueil@ORSYS.fr to review your request and its feasibility.

- To describe the SPC chart elements and SPC chart objectives.
- To describe the 9 steps of the methodology implementation of a control board.

## **DATES**

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### **REMOTE CLASS**

2024 : 03 Jun, 16 Sep, 25 Nov