## LEAN SIX SIGMA BLACK BELT COURSE



# **Lovecchio**Consulting

The quality excellence is possible only through rigorous and structured processes and methodologies. The Lean Six Sigma methodology is the most internationally recognized for this scope. This preparatory course for the Lean Six Sigma designation, allows an effective application, real savings and an high customer satisfaction.

### LEAN SIX SIGMA COURSE – BLACK BELT



#### **Benefits**

This course allows to master the Lean Six Sigma Methodology: more than waste reduction (usual for the lean approach), Six Sigma has the capability to reduce process variations and the consequent cost of non quality, together with a higher customer satisfaction. It is applied in manufacturing, distribution and service industries.

This methodology, born in 1980s, allowed a great success in various companies, once acquired the right committment and approach.

#### **Main Contents**

#### Module 1 - Introduction

- Introduction
- Six Sigma Basics
- Lean Fundamentals
- Design For Six Sigma (DFSS) Methodology

#### Module 2 - Define

- Voice of the Customer (VOC)
- **Basics of Project Management**
- Selecting Lean Six Sigma Projects
- Tools of Project Management & **Planning**
- The Lean Enterprise
- Waste Classification
- Team Performance and Dynamics

#### Module 3 - Measure

- **Process Analysis and Documentation**
- **Probability and Statistics**
- Measurement System Analysis (MSA)
- Statistic Distributions
- Data Collection
- **Process Capability**

#### Modulo 4 - Analyze

- Types of Variation
- Inferential Statistics
- Introduction to Hypothesis Testing
- Hypothesis Testing with Normal Data
- Hypothesis Testing with Non-Normal Data

#### Module 5 - Improve

- **Correlation and Regressions**
- **Advanced Process Modeling**
- Analysis of Variance (ANOVA)
- Design Of Experiments (DOE)
- **Experimental Methods**
- **Full Factorial Experiments**
- Fractional Factorial Experiments
- Root cause analysis

#### Module 6 - Control

- **Advanced Experiments**
- Capability Analysis
- Lean Controls
- **Defect Controls**
- Statistical Process Control (SPC)
- Six Sigma Control Plans

#### **Module 7 - Conclusions**

- Six Sigma Project
- Final test

#### Who should attend?

- CEO
- **Managers and Directors**
- **Quality Managers**
- Functional Managers
- Team leaders

Anybody interested in Lean Six Sigma

Methodology and who wants to earn a Lean

Six Sigma

This course is preparatory for the international Lean Six Sigma Black Belt certification.

#### Instructor

Giuseppe Lovecchio

www.linkedin.com/in/giuseppelovecchio

#### **Duration and delivery mode**

- Live online
- Recorded online
- On Site (in-company or at our offices)

The online mode is provided in ten sessions of three hours each.

The on-site mode is delivered in twelve days for 96 hours totally.

Contact us to define the date and the timeframe for the course delivery.

#### **Documentation**

At the end of the course it will be delivered at documentation in pdf format and а certificate participation issued by an APICS (<u>www.apics.org</u>) recognized instructor.

More specific courses are available in order to match your needs, also in French and Italian language.