Leanov8 smart solutions

simplifying complexities

# Black Belt Training

The Define-Measure-Analyse-Improve-Control methodology is presented with numerous case studies and examples drawn from service, business process, and manufacturing applications. This version of the Lean Six Sigma Belt, which focuses the DMAIC approach to process improvement on service-oriented processes typically found in healthcare industries, including facility operations, insurance, medical device manufacturing and financial administration, to name a few. Selected Lean Manufacturing and System Dynamics concepts are integrated with Six Sigma in this course, including value stream mapping, Takt time, line balancing, standardized work, continuous flow, Kaizen, quick changeovers, and pull scheduling. Because the course design has a heavy practice orientation, as much as half of your time is spent working through interactive practice exercises

Learning Objectives:

- Achieve significant improvements in critical business processes.
- Apply statistical and problem-solving tools to an improvement project brought to class on the first day.
- Reduce process variation.
- Eliminate waste and defects by applying lean and Six Sigma.
- Collect, analyse, and quantify data that enable process improvements.
- -Learn how to execute the Six Sigma methodology.
- Establish and define process capability.
- Identify and eliminate dominant process variation sources.
- Characterize and optimize processes by computing and applying statistical techniques.
- Design, simulate, and execute designed experiments that depict validated improvement.
- Learn how to plan and implement process control to hold project gains.

# Detailed Course Description

This Black Belt course provides a comprehensive and disciplined model for improvement. Every participant will learn how to meet his or her company's business objectives through the recognized DMAIC process. Attendees will learn how to direct Lean Six Sigma projects and obtain the maximum improvements from the learned techniques and skills. This course is conducted in four five-day sessions with four weeks between sessions.
Learned skills are practiced and applied through individual and team exercises, as well as to the individual projects. Participants will be able to apply the concepts learned in the class to a business improvement project assigned to them by their management sponsor.

## Format

This course is an instructor-led, classroom-based environment, conducted 3 days (one week) per month spread across four months. The instruction is a blend of lecture, application, and individual and team-based exercises. Laptop computers will be used extensively during the class. There is normally three-to-four weeks between sessions where the individual returns to their work environment to apply the knowledge and skills learned in class to their projects. This entire course is 240 hrs in length.

## Materials

This course is an instructor-led, classroom-based environment, conducted five days (one week) per month spread across four months. The instruction is a blend of lecture, application, and individual and team-based exercises.

Laptop computers will be used extensively during the class. There is normally three-to-four weeks between sessions where the individual returns to their work environment to apply the knowledge and skills learned in class to their projects. This entire course is 240 hrs in length.

Prerequisites

A defined, management-approved business improvement project that provides a business impact to your business of R1 000,000 or greater. The knowledge and skills learned in this training course will be applied to this project.
Basic statistics primer or understanding of basic statistics. Basic college-level algebra is helpful to understand statistical concepts.

Minitab Statistical Software is required and must be provided by the participant (may be purchased at a discount from Leanov8).

Who Should Attend:

This course is designed for individuals from diverse organizational functions—operations, quality, logistics, finance, production, engineering, and other staff functions seeking to bring significant business results to their organizations. Participants are traditionally well versed in technical aspects of their jobs, are team leaders, and are effective project facilitators.