

# NZOQ Certified Lean Six Sigma Black Belt Upgrade

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## *Course Code TGLS004P*

Lean and Six Sigma deliver business goals and objectives through the rigorous application of proven improvement methodologies. Combining both these methodologies eliminates waste, increases value and reduces variation. By focusing on the customer and delivering benefits quickly it is possible to improve quality performance and profitability simultaneously.

Thornley Group Black Belt training is carried out by professional trainers who are experienced as senior management practitioners in both Six-Sigma and Lean. After completing these 5 intensive days of training, a written examination and satisfactory review of project material you will receive certification as a Lean Six Sigma Black Belt. This course is designed to follow on from the NZOQ Green Belt. Course details are as follows:

## *Course Duration*

- 5 days

## *Entry Requirements*

- Candidates must have been trained to Green Belt level prior to attending (this will require verification prior to attendance).
- Candidates must have a knowledge of algebra and be used to analysing numerical data (i.e. Green Belt).
- Candidates must have the authority to work on a project in their organisation as this is a mandatory requirement for certification. This should be a cost saving, defect reduction or other customer impact project.

## *Equipment Needed by Candidates*

- Scientific Calculator.
- A lap-top computer loaded with Minitab software will be beneficial during the course (but not essential).

## *Course Contents*

Our Black Belt training provides all that is required for Lean Six Sigma implementation and project leadership. Whilst building on the central DMAIC and Lean principles, the focus is on team and project management along with advanced statistical tools and data management.

Thornley Group Black Belt training is targeted at people who run business improvement projects and/or have responsibility for managing improvement teams. After attending the course and passing the written examination, a project of significant size is undertaken and delivered within a 4-6 month period. At this stage the project is assessed and, subject to acceptance, a Black Belt certificate is issued. Using their practical experience of improvement programmes, along with simulation exercises, our trainers can take candidates through the process of applying the tools and techniques that they learn.

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## *Summary Course Contents*

- Managing Change
- Leadership
- Value Stream Analysis
- Lead-Time Reduction
- Flexible Production
- Levelling Demand
- Line Balancing
- Standardised Work
- Kaizen and Kaizen Blitz
- Critical to x
- Benchmarking
- Balanced Scorecard
- Cost Benefit Analysis
- Managing Teams
- QFD
- Kano Model
- Metrology
- Advanced Statistical Concepts
- Probability Distributions
- Attribute Data Analysis
- Contingency Tables
- Advanced Hypothesis Testing
- Design of Experiments
- Risk Analysis
- Design for Six Sigma
- Design for x
- Statistical Tolerancing
- Strategic Planning
- Porter's 5 forces
- Theory of Inventive Problem Solving
- Systematic Design
- Critical Parameter Management
- Pugh Analysis

**After Completion of the training, candidates will sit a written examination. After successful completion of a project that delivers significant cost savings, defect reduction or other customer impact, Black Belt certification will be awarded.**

**100% attendance at the course is required to gain certification.**

**Successful candidates will have to recertify every 3 years. This involves the maintenance of a portfolio of activity showing that Black Belt skills are maintained and developed.**

*See the [Thornley Group](http://www.thornleygroup.co.nz) website for details of Public Lean Six Sigma Black Belt course dates and costs.*