

Mastering Lean Six Sigma: Black Belt Certification Program

Audit & Quality Assurance
Cape Town (South Africa)
20 - 31 Oct 2025

UK Traininig

PARTNER



Mastering Lean Six Sigma: Black Belt Certification Program

Ref: 321575_128351 **Date:** 20 - 31 Oct 2025 **Location:** Cape Town (South Africa) **Fees:** 5600 Euro

Course Description

This intensive 10-day Lean Six Sigma Black Belt course equips participants with advanced skills in process improvement, statistical analysis, and project management. Designed for experienced professionals, the program covers complex problem-solving techniques, advanced statistical tools, and leadership strategies essential for driving organizational excellence and leading high-impact projects.

Learning Objectives

- Master advanced statistical tools and techniques for complex process analysis
- Develop expertise in leading large-scale improvement projects across multiple functions
- Enhance strategic thinking and decision-making skills for process optimization
- Gain proficiency in mentoring and coaching Green Belts and project teams
- Learn to align Lean Six Sigma initiatives with organizational goals and strategies

Course Modules

Day 1: Advanced Lean Six Sigma Concepts

- Review of Lean Six Sigma fundamentals
- Advanced DMAIC methodology
- Strategic project selection and scoping
- Change management and leadership principles

Day 2: Advanced Statistical Analysis

- Hypothesis testing and confidence intervals
- Analysis of Variance ANOVA
- Multiple regression analysis
- Non-parametric tests

Day 3: Design of Experiments DOE

- Full factorial designs
- Fractional factorial designs
- Response surface methodology
- Taguchi methods

A graphic of a chessboard with several pawns. In the foreground, a large gold king piece stands prominently. Behind it, several silver and gold pawns are positioned on different squares. The background features concentric circles emanating from behind the king piece, creating a sense of depth and focus.

UK Training
PARTNER

Day 4: Advanced Process Capability and Control

- Multivariate process capability analysis
- Short run SPC techniques
- Advanced control charts
- Process capability for non-normal data

Day 5: Lean Methods and Tools

- Value Stream Mapping VSM for complex processes
- Theory of Constraints TOC
- Advanced pull systems and Kanban
- Lean for non-manufacturing environments

Day 6: Advanced Root Cause Analysis

- Fault Tree Analysis
- Failure Mode and Effects Analysis FMEA
- Shainin Red X methodology
- Advanced problem-solving techniques

Day 7: Financial Analysis and Project Management

- Cost-benefit analysis for complex projects
- Risk assessment and mitigation strategies
- Advanced project management techniques
- Stakeholder management and communication

Day 8: Data Mining and Predictive Analytics

- Introduction to data mining techniques
- Predictive modeling
- Machine learning applications in Six Sigma
- Big data analytics for process improvement

Day 9: Design for Six Sigma DFSS

- DMADV methodology
- Quality Function Deployment QFD
- Robust design principles
- Design for reliability and maintainability

Day 10: Leadership and Deployment Strategies

- Developing a Lean Six Sigma culture
- Coaching and mentoring techniques
- Organizational deployment strategies

A graphic of a chessboard with several chess pieces. A large gold king piece is in the foreground, with a silver pawn and a silver knight behind it. In the background, there are concentric circles emanating from a point on the board.

UK Training
PARTNER

- Sustaining improvements and continuous learning

Practical Wins for Participants

- Ability to lead complex, cross-functional improvement projects with significant financial impact
- Enhanced skills in advanced data analysis and strategic decision-making
- Expertise in mentoring and developing Green Belts and project teams
- Capability to align process improvement initiatives with organizational strategy and goals

A graphic illustration of a chessboard with several chess pieces. A large gold king piece is prominent in the foreground, with a silver pawn and a silver knight nearby. In the background, there are concentric circles emanating from a point, suggesting a strategic or analytical theme.

UK Training
PARTNER

Blackbird training cities



Amman (Jordan)



Amsterdam (Netherlands)

Accra (Ghana)

Annecy (France)

Baku (Azerbaijan)

Bali (Indonesia)

Bangkok (Thailand)

Bangkok (Thailand)

Barcelona (Spain)

Batumi (Georgia)

Beijing (China)

Beirut (Lebanon)

Berlin (Germany)

Birmingham (UK)

Bordeaux (France)

Boston, Massachusetts (USA)

Brussels (Belgium)

Cairo (Egypt)

Cape Town (South Africa)

Casablanca (Morocco)

Cascais (Portugal)

Copenhagen (Denmark)

Doha (Qatar)

Dubai (UAE)

Düsseldorf (Germany)

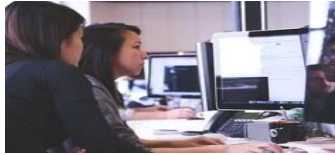
UK Training
PARTNER



Blackbird Training Category



Human Resource



Audit & Quality Assurance



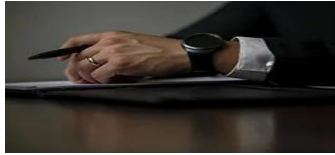
Finance, Accounting, Budgeting



Marketing, Sales, Customer Service



Secretary & Admin



Law and Contract Management



Project Management



IT & IT Engineering



Supply Chain & Logistics



Management & Leadership



Professional Skills



Oil & Gas Engineering



Health & Safety



Telecom Engineering



Hospital Management



Customs & Safety



Aviation



C-Suite Training



Agile and Refinement

Blackbird training Clients



MANNAI Trading
Company WLL,
Qatar



Alumina Corporation
Guinea



Booking.com
Netherlands



Oxfam GB International
Organization,
Yemen



Capital Markets
Authority,
Kuwait



Waltersmith Petroman Oil Limited
Nigeria



Qatar National Bank
(QNB),
Qatar



Qatar Foundation,
Qatar



AFRICAN UNION ADVISORY
BOARD ON CORRUPTION,
Tanzania



KFAS
Kuwait



Reserve Bank of
Malawi,
Malawi



Central Bank of Nigeria
Nigeria



Ministry of Interior
Kingdom of Saudi Arabia
KSA



Mabruk Oil Company
Libya



Saudi Electricity
Company,
KSA



BADAN PENGELOLA
KEUANGAN Haji,
Indonesia



NATO
Italy



ENI CORPORATE
UNIVERSITY,
Italy



Gulf Bank
Kuwait



General Organization for
Social Insurance
KSA



Defence Space Administration
Nigeria



National Industries
Group (Holding),
Kuwait



Hamad Medical
Corporation,
Qatar



USAID
Pakistan



STC Solutions,
KSA



North Oil company,



EKO Electricity



Oman Broadband



UNITED NATIONS
UN.



Authority for

UK Training
PARTNER



LONDON TRAINING PROVIDER



www.blackbird-training.com



training@blackbird-training.com



+44 7480 775526 / +44 7401 177335