

# Mastering Lean Six Sigma: Black Belt Certification Program

Audit & Quality Assurance  
Düsseldorf (Germany)  
04 - 15 Aug 2025

UK Traininig

# PARTNER



## Mastering Lean Six Sigma: Black Belt Certification Program

**Ref:** 321575\_134171 **Date:** 04 - 15 Aug 2025 **Location:** Düsseldorf (Germany) **Fees:** 7100 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 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**

#### **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, including a king, queen, and pawns, arranged on the board. The board is white and black, and the pieces are gold and silver.

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](http://www.blackbird-training.com)



[training@blackbird-training.com](mailto:training@blackbird-training.com)



+44 7480 775526 / +44 7401 177335