



Six Sigma Black Belt

Attending this Royal Statistical Society certified Six Sigma Black Belt course equips delegates with Six Sigma skills at an expert level.

Students will gain the knowledge to identify and assess potential business process improvements and manage multi-disciplinary teams to successfully carry out those changes. The focus of Six Sigma projects could be lower operational costs, greater productivity, reduced waste or higher quality, for example, within the context of factors such as stakeholder and customer demands.

The 10-day course combines our Lean Six Sigma Green Belt training course with further advanced training to give delegates a complete education in Six Sigma tools and techniques, from introduction through statistical analysis to leadership skills.

Students can practice their learning during the course through case studies and exercises.

COURSE DURATION

10 days

CPD

Equivalent to 70 hours

COURSE PRICE

From £3995 + VAT

DATES & VENUES

[View dates & venues](#)

CERTIFICATES

All delegates will receive a certificate on completion.

Who should attend?

This course is suitable for individuals who:

- want an expert level understanding of Six Sigma and a recognised Six Sigma Black Belt certificate
- will be responsible for training and coaching others on the use of process improvement techniques
- will lead/manage improvement projects using the define, measure, analyse, improve, control (DMAIC) methodology
- need to deliver agreed benefits of a Six Sigma project within an organisation
- are taking a leadership role with responsibility for stakeholder needs during Six Sigma implementation projects
- will be required to identify gaps in competencies within the team or organisation

We offer alternative paths to Black Belt qualifications to suit different needs. Delegates who have previously completed our Lean Six Sigma Green Belt training course or similar will benefit most from attending our [Six Sigma Green Belt to Black Belt upgrade course](#).

Anyone seeking to apply for Six Sigma certification against ISO 18404 through the [RSS 18404 Sector Scheme](#) may like to look at our 13-day [RSS 18404 Six Sigma Black Belt Development Programme](#).

As the course incorporates our Six Sigma Green Belt training, students do not need prior knowledge to attend.

Students can attend the 10-day course in full over two consecutive weeks, or book two 5-day courses separately.

Please note this course incorporates advanced mathematical and statistical elements. Delegates are required to use Excel, or equivalent, during the course.

Key topics

Topics covered on the course include:

- overview of ISO 18404
- introduction to Lean, Six Sigma and Lean Six Sigma
- Lean Six Sigma toolkit
- change management
- define, measure, analyse, improve, control and transfer (DMAIC(T)) project management
- Lean principles
- customer focus
- stakeholder management
- risk management
- presentation and reporting
- statistics, data and problem solving
 - frequency distributions
 - hypothesis testing
 - root cause analysis (RCA)
 - localisation
- Six Sigma tools
 - measurement system analysis (MSA)
 - statistical process control (SPC)
- role and competency requirements for Black Belts
- training, coaching and mentoring Six Sigma Green Belts
- gap analysis
- benchmarking
- advanced Lean
- integrity of data
- design of experiments
- full factorials and fractional factorials
- analysing Big Data sets
 - data acquisition
 - statistical software
 - statistical techniques

Skills gained

On successful completion of the course delegates will be able to:

- facilitate and lead improvement projects using the DMAIC methodology
- participate in all gate reviews directly through prepared presentations of the work accomplished to date
- organise multi-disciplinary teams
- work with others to identify and quantify opportunities for improvement
- acquire data and analyse Big Data sets to identify and quantify opportunities for improvement
- fully understand the Six Sigma principles and how to implement them

In-company training

Ideal for groups, you can receive this course exclusively for your organisation at your premises or online in our user-friendly Virtual Classroom.

Enjoy cost-effective flexibility and personalised learning with tailored messaging designed to address your unique business challenges.

[Contact us for a quote.](#)



The course is certified by the Royal Statistical Society (RSS) and all students will receive an RSS approved Six Sigma Black Belt certificate following completion of the training.

Course agenda

Our training courses are designed to optimise the learning experience for delegates both in face-to-face settings and in our Virtual Classroom.

Under the guidance of our expert tutors, attendees will follow an agenda which is briefly outlined below:

- Welcome and Introductions
- ISO 18404:2015 & Certification Requirements
- Introduction to Lean, Six Sigma & Lean Six Sigma Roles
- Lean Six Sigma & the Relationship to Quality, Efficiency and Productivity
- Process Thinking and the (Lean) Six Sigma Toolkit
- Exercise: Claims Authorisation Process
- DMAIC(T) Project Management & Decision Making
- Exercise: Formulate a Project Charter & Stakeholder Analysis for a LSS Project
- Interpersonal & Team Leadership Skills Stakeholder Management
- Exercise: Major Activities – Inputs and Outputs
- Creativity Tools & Defining the Project Mission
- Exercise: Enlightenment Process
- Exercise: Applying the Problem Definition Sheet and 5W2H Method
- Exercise: 5 Why's
- Principle & Practice of Lean Value Stream Analysis
- Exercise: Value Added
- Exercise: Construct a Value Stream Map
- Change Management
- Exercise: Syndicate Exercise: Successfully Managing Change for Lean Six Sigma
- Leadership and Motivation
- Exercise: Development and Independence Level Analysis form
- Exercise: Belbin questionnaire & Conflict Questionnaire
- Customer Focus
- Exercise: House of Quality
- Risk Management
- Exercise: Identify & Evaluate Risks Associated with a Green Belt Project Proposal
- Sustainability & Control
- Presentation & Reporting Skills
- Numeracy
- Data Acquisition for Analysis
- Exercise: Appropriate Data
- Statistical Concepts
- Exercise: Tutor Led Exercises on Microsoft Excel
- Practical Problem Solving
- Six Sigma Tools
- Statistical Software Use
- Role & Competency Requirements for Black Belts
- Comparison Black Belt to Green Belt Requirements
- Managing the Competencies Requirements
- Requirement to Train, Coach & Mentor Green Belts
- Gap Analysis & Action Plans
- Exercise: Review Your Competencies
- Exercise: Your Action Plan
- Benchmarking
- Exercise: Identify Appropriate Topics to Benchmark

- Poka Yoke Mistake Proofing
- Exercise: Sources of Defects
- Exercise: Red Flag Conditions
- Exercise: Defect Identification
- Theory of Constraints
- Exercise: High/Low Inventory
- Integrity of Data
- Exercise: Distribution of Time
- Multiple Regression and Correlation
- Exercise: Investigate the Correlation
- Introduction to Design of Experiments
- Full Factorial Designs
- Fractional Factorial Designs
- Analysing Big Data Sets
- Exercise: IT Help Desk
- Process Design / Specification
- Survey Design and Analysis
- Taguchi Methodology
- Box-Behnken Designs
- Summary
- Review & Close

The tutors' knowledge of industry, varying disciplines and application on the six sigma methods within each was useful.

Excelitas Uk Ltd

Our tutor had a vast knowledge of the subject matter and was happy to change the pace dependent on delegates and complexity of literature. They had useful real-life examples to strengthen the course material.

Bevan Motor Bodies

Good pace set throughout the course and materials were well explained, both tutors did an exceptional job.

UK-NSI Ltd

[Read our Lean and Six Sigma training course reviews](#)

Why train with Bywater?

Bywater is the leading independent provider of professional management systems training in the UK.

Our expert training offers practical understanding of how to realise the benefits and assess the success of implementing and operating successful management systems.

Bywater delegates know they can rely on proven training delivered by experts at times and locations to suit their needs.

40 years established

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15 UK locations

1000+ courses annually



Global Virtual Classroom

CQI & IRCA, ISEP, RSS and IOSH approved training provider.



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If you have any questions please call us on 0333 123 9001, use our online chat or email contact@bywater.co.uk

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