

Catalyst's Lean Six Sigma Public Training Courses



About Catalyst Consulting

Catalyst Consulting Ltd is a UK based specialist in business improvement techniques. We provide in-company and public Lean Six Sigma Training and Coaching support. Catalyst also provides a range of related services – including Balanced Scorecard, Hoshin Kanri, Kaizen, Process Management, Change Management, Leadership plus EFQM Model support and training.

The company was established in 1995 and has trained literally thousands of people at all levels in Lean and Six Sigma techniques. Catalyst was selected by GE as European Trainer for their Black Belt and Master Black Belt programmes and the only external organisation accredited by GE Capital to provide Master Black Belt training in Europe.

Our client list includes over 70 'blue chip' organisations including GE, BAA, Sun Microsystems, Lloyds TSB, O2, Siemens Medical, Yell, Diageo, BUPA, Dyson, Saint Gobain, Abbey National, BT, FLS Aerospace, NHS Trusts, Local Authorities, Financial Ombudsman Service, Novartis, Volvo and Rolls Royce. The majority of this work has come as a direct result of recommendation from client to client.

The Catalyst Lean Six Sigma public training programme

This programme, which has been running continuously since 2004, has been carefully designed to meet the needs of European based organisations building on Catalyst's extensive Lean Six Sigma experience working inside organisations across Europe. All our courses are accredited by the British Quality Foundation.

Clients who have attended this programme include: Siemens Medical, BMW, Ericsson, Jordan's Cereals, AstraZeneca, Research Machines, UBS, BSI, Arizona Chemical, Barclays Capital, Yell, BT, Pindar, Exel Logistics, Travelex, Centrica, HJ Heinz, Airbus, Carillion, Citigroup, Oxfordshire County Council, Surrey County Council, Vehicle and Operator Services Agency, BAE, & the NHS.

How does it work?

This modular programme can take you to either Green Belt (Foundation or Advanced), or Black Belt level.

- **Foundation Green Belt**
- **Foundation Green Belt Plus Effective Change Management**
- **Advanced Green Belt** achieved on completion of Foundation Green Belt plus Statistics 1 and Statistics 2
- **Black Belt** achieved on completion of Foundation Green Belt, Change Management, Statistics 1 and 2 and Advanced Black Belt Tools
- **Lean Six Sigma for Innovation and Design**

We run the programmes in Waves. You may choose whichever dates and locations suit you best.

Please call us and one of our experts can talk you through the best option to meet your specific requirements.

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Course Outlines

Catalyst's Lean Six Sigma Awareness Workshop

This one day workshop will provide delegates with a comprehensive understanding of the background, principles and fundamentals of Lean Six Sigma.

Delegates will learn about the roles and responsibilities of organisations and individuals in Lean Six Sigma projects as well as the project structure and methodology of Lean Six Sigma through presentations, discussion and exercises.

Issues involved in planning for and implementing a deployment in delegates' organisations will also be covered.

This course is designed for anyone who needs to learn the basics about Lean Six Sigma. In addition to the workshop activities, each delegate will receive a copy of the training materials - Slide set, Champion's Guide, pocket guides.

Lean Six Sigma Foundation Green Belt

This four day course will suit anyone who needs a thorough understanding of what Lean Six Sigma is, and how it works in practice without yet requiring the more advanced statistical tools. It is ideal for members of project teams, project sponsors or those who need to learn about the everyday tools of Six Sigma and Lean. The course includes practical training on the most commonly used Six Sigma and Lean tools and on completion of this course delegates will be able to work effectively as members of Six Sigma DMAIC projects. This course has proved to be equally relevant to manufacturing and service/ transactional environments. Each participant receives a comprehensive delegate pack including a copy of Catalyst's Lean Six Sigma Improvement Journey tool book.

Curriculum Outline This course is an accelerated foundation course concentrating on the Six Sigma methodology. For delegates with little or no previous knowledge of Lean Six Sigma, we recommend they attend the 1-day Lean Six Sigma Awareness Workshop described above. The four day foundation course then explores the Six Sigma Project Structure to include: change management; project definition, charters, stakeholder analysis; process mapping; voice of the customer, Critical-To-Quality (CTQ), input/output measures, data collection; control charts, root cause analysis and basic non-statistical tools. A number of individual and team exercises are used to reinforce the concepts and encourage use of the tools. This course provides sufficient background for delegates to begin refining, in detail, their own projects. Each delegate receives a comprehensive materials pack including the Catalyst memory stick containing a host of useful templates, guides, and full copies of Flowmap (for process mapping), SPC Plus (for Control Charts) and CPM Critical Path project planning. A screen image from the Catalyst memory stick follows:

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Templates & Spreadsheets



Lean Six Sigma Advanced Green Belt

This 10-day course includes the Green Belt Foundation programme described above as its first module and goes on to cover the majority of statistical tools needed for DMAIC projects (Stats Tools 1 & 2).

This programme has proven to be very popular, as it is ideal for Lean Six Sigma project team leaders and team members who need to be able to apply a wide range of tools on real life projects. The course has proved to be equally relevant to manufacturing and service/ transactional environments. The mix of delegates on the training is one of the attractions of attending this open programme.

The course is very 'hands on' with practical activities throughout the programme. This course includes comprehensive training and use of Minitab™ Statistical Software. Delegates will need to bring a laptop computer to Stats Tools 1 & 2, (for Stats Tools 1 and Stats Tools 2 course details see the section on Lean Six Sigma Black Belt, below.) Catalyst can provide a demonstration version of Minitab™ but delegates are encouraged to purchase copies of Minitab™ directly from Minitab Ltd. Catalyst can provide advice if required. No prior knowledge of MINITAB™ is needed. A full practical introduction is included at the start of this programme. Each participant receives a comprehensive delegate pack including Catalyst's Lean Six Sigma Improvement Toolbook, Statistical Tool guides, Worksheets, project examples and support materials for use in Minitab™.

Lean Six Sigma Black Belt

This 16 day modular course includes a practical introduction and then training on the full range of Six Sigma and Lean tools. On completion of this course delegates will be able to work as leaders of Six Sigma DMAIC projects. This course has proved to be equally relevant to manufacturing and service/ transactional environments.

This programme includes training on the advanced (statistical) tools required to execute the full range of Six Sigma DMAIC projects. Practical exercises are incorporated to provide relevant scenarios for delegates. During these modules each delegate will be required to use statistical software. The course is equally relevant to manufacturing and service/ transactional environments. The mix of delegates on the training is one of the attractions of attending this open programme.

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Each participant receives a comprehensive delegate pack including Catalyst's Lean Six Sigma Improvement toolkit, Statistical Tool guides, Worksheets, Project examples and support materials for use in MINITAB™.

The Black Belt course modules are:

Lean Six Sigma Foundation.

This introduces the Lean Six Sigma principles and methodology. Delegates then cover the Define, Measure, Analyse, Improve, Control [DMAIC] phases in depth including: change management; project definition; charters; stakeholder analysis; process mapping; voice of the customer; Critical-To-Quality (CTQ); input/output measures; data collection; control charts; root cause analysis and basic non-statistical tools. Lean techniques including Value Stream Maps, 5S, Flow are integrated into the programme to show how the two approaches can work together and complement each other. Several individual and team exercises are used to reinforce the concepts and encourage use of the tools.

Change Management

Covers the “softer” change management tools required to lead successful Lean Six Sigma projects. Topics included in this 3-day module include change management, team building, and conflict resolution. This module is delivered through a combination of presentation, case studies, videos and hands-on exercises.

Stats Tools 1: Data Measurement Techniques

Topics include an introduction to basic statistics and graphical analysis (using Minitab™) followed by principles of Normality (including Central Limit Theorem, P-values, Transforming non-normal data), Sampling (Process and Population sampling, Determining sample sizes, Selecting samples), Introduction to Control Charts and Individuals/XmR Charts, Measurement System Analysis (Data Types, Gauge R&R, Attribute Agreement Analysis) and Process Capability (DPMO, Process Sigma, Process Capability, Sigma Shift).

Stats Tools 2: Data Analysis Techniques

Topics include Introduction to Hypothesis Testing (Z-test, t-tests, ANOVA, Chi-square Analysis), Regression Analysis (Simple Linear and Multiple and an introduction of Logistic Regression), Control Charts (Attribute Data charts and Variables charts with subgroups), Introduction to Factorial Designed Experiments followed by a Mini-Case Study.

Black Belt Advanced Tools

Topics include Advanced Regression (Best Sub-sets and Indicator Variables), Advanced ANOVA (Two-way and General Linear Model), Curvilinear Regression, Multiple and Ordinal Logistic Regression, Non-parametric Hypothesis Tests, Introduction to Time Series and Seasonality, Time-weighted Control Charts, Design of Experiments (Full and Partial Factorials), and other non-statistical Black Belt Tools and Skills. The module concludes with a day-long case study covering all major phases of a DMAIC project. This module also requires a laptop computer and Minitab™ software.

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Lean Six Sigma for Innovation and Design

This course builds on your existing knowledge of improvement and DMAIC methodology and provides an additional and complementary range of tools and techniques to support highly effective and rapid innovation.

Objectives

- Empower yourself to be more effective in creating the future of your organisation
- When to apply DMADV versus the DMAIC process?
- Understand the DMADV process and the tools you can apply to your projects
- Design and tollgate reviews and how these reviews should be conducted and managed

“The best way to predict the future is to create it.”

Peter F. Drucker, American Management Guru

So Why and How Does Lean Six Sigma help? The Lean Six Sigma Innovation and Design Journey

- Provides a design methodology that integrates customer focus and structured tools with a systematic design process
- A total design approach that maintains focus on the customer throughout the process

Day 1

- Introductions and Objectives
- Importance of Innovation and DMAIC vs DMADV?
- Change Management
- DEFINE: Segmenting Customers and Multi-Generation Planning
- MEASURE: VOC techniques and issues

Day 2

- QFD, creating the 'House of Quality'
- CTQs and rating needs, Competitive and Benchmark assessment
- Value Proposition and Design Scorecards
- ANALYSE: Functional Analysis, Transfer Functions and HOQ2
- Concept Development and Testing

Day 3

- Design Elements and High Level Design
- Capability Evaluation, Modelling and Risk
- DESIGN: Detailed Design and Design of Experiments

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- Design Integration and Pilot planning
- VERIFY: Piloting and Implementation
- Control, Process Management, Transition and Closing

Supported by lots of exercises and discussion breaks.

Certification

Catalyst offers British Quality Foundation examinations and certification at Green, Black and Master Black Belt levels. Passing the exam shows you have assimilated what you learned during your training. Becoming BQF Certified shows you have demonstrated a level of achievement in your projects and your success is recognised by Europe's largest corporate membership organisation promoting performance improvement and excellence. In these uncertain times, it is a useful addition to anyone's CV.

- **Green Belt**
Attendance at the Catalyst Foundation Green Belt module ensures you have covered all the topics you need for the Green Belt examination. This 2 hour examination is open book and an online link is emailed out to delegates on the last day of the course. This link remains live for two weeks and the exam can be taken at any time during the two week period. To gain full BQF Green Belt certification, delegates also need to demonstrate success in leading a project.
- **Black Belt**
The Black Belt syllabus covers Foundation Green Belt, three Statistics modules and a Change Management module. The 4 hour written examination is also open book, but has to be taken at an Assessment Day. To gain full BQF Black Belt certification, delegates also need to demonstrate success in leading two projects, which will also be reviewed at an Assessment Day, to be scheduled after successful completion of the written exam.

Venues

Our Public Training courses are held in Stratford upon Avon, Edinburgh and London.

Stratford upon Avon courses take place at the Swans Nest Hotel, a beautiful riverside location with many excellent restaurants and plenty to see and do 'after training,' especially visiting the home of the Royal Shakespeare Company, all within walking distance of the training facilities.

Edinburgh courses take place at the Offices of Quality Scotland ten minutes from Princes Street.

London courses take place in the Institution of Engineering and Technology (IET) Building, 2 Savoy Place in the heart of the centre, close to Covent Garden and the West End.

To book places on our training programmes and assessment days or for further information, please contact us:

0845 345 2282
+44 845 345 2282 (outside the UK)
email: info@catalystconsulting.co.uk

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"The course attracted a mix of international delegates from service and manufacturing organisations which stimulated great discussions that helped to absorb the application of Lean SS Techniques. The main tutor, Jim Stephenson, delivered the course to an exceptionally high standard, carefully paced and with good balance between classroom and practical sessions. He was a highly experienced Master BB who had great mastery of Minitab and the ability to de-mystify the statistical side along with extensive consulting exposure. His teaching used many real life examples. He showed keen interest in each delegate and the challenges they faced in their projects offering ideas and helping to get started and build confidence. The course also included a really valuable session on the soft aspects of change management. Thank you Catalyst."

Sue Birch, Synergetic Ltd

To see more customer quotes visit our website at: www.catalystconsulting.co.uk

Support Materials

We have a large range of highly acclaimed supporting materials to help us achieve our mission to enable results both for our clients and participants. Please contact us for further details.