Smallpeice Enterprises
a division of GP Strategies Limited

Lean Six Sigma
Manufacturing Black Belt



- Manufacturing Focused Content
- Virtual Training Delivery
- Open Enrolment Calendar
- Fully Accredited

train@smallpeice.com

Introduction

Our comprehensive Black Belt programme is designed as a 'start from zero' training path for those working in technical / production / manufacturing functions. As the content covers the full suite of DMAIC tools, it is not necessary to enter the programme with Yellow or Green Belt experience (if you fall into this category then please see our 'Upgrade' training options).

Black Belt training provides a powerful improvement toolkit and develops expert Lean Sigma practitioners who are able to:

- assess improvement opportunities and have the skills to select the right approach problem solving methodology.
- Lead and deliver large-scale cross-company projects delivering significant and quantifiable operational benefits.
- Encourage the cascade of Lean Six Sigma by supporting Green & Yellow Belts, and liaising with key sponsors and stakeholders to provide input to the company improvement strategy.

Programmes include:

- Open enrolment calendar with choice of live virtual training or classroom-based events at regional venues.
- In-company programmes for group training at your company site.
- Interactive delivery style with case study team exercises to bring alive the technical content and showcase applications to transactional projects.
- Extensive course materials hub including user-friendly Lean Six Sigma toolkit; consolidation learning via supplementary e-learning modules; dozens of templates and proformas ready to use for your project.
- Industry recognised accreditation standards via Smallpeice or our external partnership with the British Quality Foundation.
- Optional add-on coaching packages to guide and fast-track you through your project.

Minitab Software:

During the Black Belt programme, you will learn how to use Minitab – which is the industry standard software for Lean Six Sigma. Whereas Green Belt level projects can be handled via Excel, the deeper level of data and graphical analysis at Black Belt needs the bespoke functionality of Minitab. If you do not have Minitab licenses in your company already – this is something you will need to explore before enrolling by visiting www.minitab.com.



For bookings & enquiries
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Open Enrolment Classes

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	DEFINE			MEASURE					
Jan 2027 course	Jan 28 (1 day)	Jan 29 (½ day)	Jan 29 (½ day)	Feb 8 (1 day)	Feb 22 (½ day)	Feb 23 (1 day)	Mar 5 (1 day)	Mar 15 (1 day)	Mar 16 (1 day)
	SESSION 1: 8.30am – 4.30pm THE DEFINE PHASE • Writing problem statements • Setting the project objectives • Scoping the project • Mapping the high- level process: SIPOC mapping • Linking the problem to VOC • Defining CTQs • Drawing up the project charter	SESSION 2: 8.30am – 12.15pm MANAGING CHANGE & ENGAGING STAKEHOLDERS • Analysing enablers/barriers using force field analysis • Building and communicating the business case • Securing project sponsorship & engaging key stakeholders • Influencing skills & dealing with initial resistance • Building and managing the project team	SESSION 3: 12.45pm – 4.30pm UNDERSTANDING THE CURRENT STATE PROCESS • Process mapping tools overview • The role of process mapping in DMAIC projects • Process flow & sequence charting techniques • Identifying Value and Non-Value Add activity & identify quick wins	SESSION 4: 8.30am – 4.30pm MANAGING & DEFINING BLACK BELT PROJECTS • DMAIC versus DMADV projects • Scoping complex cross-functional projects • Value stream mapping as a scoping tool • Aligning the project to business strategy • Managing project reviews (tollgates) • Considering project risks	SESSION 5: 8.30am – 12.30pm VALUE STREAM MAPPING • Introduction to Value Stream Mapping • Creating a Current State Map • Using VSM as a Scoping Tool • Identifying the Opportunities	SESSION 6: 8.30am – 4.30pm DATA COLLECTION • The role of data collection planning throughout a DMAIC project • Use of Is/Is Not to find gaps in knowledge • Understanding variation • Selecting what to measure • Calculating sample size • Sampling considerations • Developing a robust data collection plan • Guidelines for survey sampling	SESSION 7: 8.30am – 4.30pm MEASUREMENT SYSTEM ANALYSIS • MSA fundamentals • Type I studies for repeatability • Type II studies (reproducibility) • Nested gauge R&Rs for destructive tests • Assessing linearity & bias aspects of calibration • Assessing stability (of bias during calibration) • Attribute agreement analysis for pass/fail judgements	SESSION 8: 8.30am – 4.30pm PROCESS CAPABILITY & PROCESS CONTROL • Assessing process control • Anatomy & use of control charts • Applications of SPC charts for variable and attribute data • Understanding process capability • Calculating process capability for continuous and attribute data • Selecting appropriate capability metrics & indices	SESSION 9: 8.30am – 4.30pm ADVANCED STATISTICAL APPROACHES • Understanding probability distributions for variable and attribute data • Dealing with non- normal data • Capability analysis for non-normal data • Statistical process control charts for non-normal data • The central limit theorem • Understanding and using data transformations

Live Training via MS Teams

This programme is designed for an interactive training experience delivered via MS Teams. Delegates will work in syndicate groups on case study exercises and learn from facilitators who are passionate about delivering an effective & enjoyable virtual Lean Six Sigma training experience.

Accredited Training

To qualify as a Black Belt, delegates will take an online multi-choice exam plus complete and submit a project for assessment. Full guidance is provided on the project requirements. There is also an option to receive external accreditation via the British Quality Foundation (BQF) for an additional surcharge fee of £250+VAT.

v1-08.10.24

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	ANALYSE						IMPROVE			CONTROL	
Jan 2027 course	Mar 25 (1 day)	Apr 1 (1 day)	Apr 8 (½ day)	Apr 9 (1 day)	Apr 19 (1 day)	Apr 20 (1 day)	Apr 28 (1 day)	May 6 (½ day)	May 7 (1 day)	May 13 (1 day)	May 14 (1 day)
	SESSION 10: 8.30am – 4.30pm ANALYSE PHASE • Verifying the root cause • Taking a structured approach to data analysis • Links to the cause and effect diagram • 5 Why approach to problem solving • Box plots & scatter diagrams • Significance testing approach • Tips for summarising and presenting the analysis	SESSION 11: 8.30am – 4.30pm HYPOTHESIS TESTING • Use of inferential statistics • Writing a hypothesis statement • Setting a confidence level • Understanding the P-Value • Tests for variable and attribute data • Power & sample size • Non-parametric techniques	SESSION 12: 8.30am – 12.30pm INTRO TO DOE • Overview of DOE techniques • Optimisation challenge • Applications of DOE techniques	SESSION 13: 8.30am – 4.30pm OPTIMISING THE PROCESS • Regression analysis • Understanding correlation • Introduction to simple linear regression • Introduction to multiple regression	SESSION 14: 8.30am – 4.30pm SCREENING & TAGUCHI METHODS • Introduction to fractional factorial • Screening designs • Advanced techniques e.g. EVOP, RSM • Taguchi loss function • Taguchi designs that deliver robust solutions in the presence of noise	SESSION 15: 8.30am – 4.30pm ADVANCED DOE TECHNIQUES • Mixed and multi-level designs • Response surface designs • Botched runs • Randomisation and grey coding • DOE with historical data	SESSION 16: 8.30am – 4.30pm SITUATIONAL LEADERSHIP • Transformational leadership • Influencing change • Concepts and models for change • Persuasion campaigning	SESSION 17: 8.30am – 12.30pm MANAGING RESISTANCE & EMBEDDING CHANGE • Learning from experience • Emotional responses to change • Rationalising resistance to change • Handling conflict • Sustaining change through the Improve & Control phases – and beyond • Facilitating handover	SESSION 18: 8.30am – 4.30pm DEVELOP THE IMPROVEMENT • Taking a structured approach for the improve phase • Use of creativity tools to generate alternative solutions • Developing & evaluating alternative solutions • Developing the future state map • Verifying & implementing the solution	SESSION 19: 8.30am – 4.30pm COACHING IMPROVEMENT TEAMS • The key skills of coaching • The coaching continuum expert to discovery • Using the GROW model	SESSION 20: 8.30am – 4.30pm IMPLEMENTING CONTROL • Key steps of the Control phase • Confirming the improvement • Developing a control plan • Different types of process control • The principle of mistake proofing • Monitoring effectiveness • Closing the improvement project

TRAINING FEE

The cost per participant is £3550+VAT. Fees are fully inclusive of:

- Live training via MS Teams
- Access to materials hub
- The full accreditation process: exam plus project assessment and certification

HOW TO BOOK

Please email Smallpeice via train@smallpeice.com with your enquiry/requirements. Our experienced Lean Six Sigma booking team will then send you a booking form. Following enrolment, we will onboard participants to the programme platform which will provide a detailed menu of activities and preparation.

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Options

Coaching Support

This can be provided via a series of 3 x 1-hour 1-to-1 sessions, delivered via MS Teams. These can be scheduled to suit the progress of your project. The cost of the coaching package is £495+VAT.

Accreditation via British Quality Foundation (BQF)

The option for accreditation via the internationally recognised body of the British Quality Foundation is available for an additional fee of £250+VAT.

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Payment Terms

- An invoice will be issued following receipt of a confirmed booking.
- Payment is due 30 days from the invoice date.
- Payment can be made via credit card or bank transfer. Payment details can be found on the invoice.

Cancellation Terms

If you should have to cancel a registration, the following options are available:

- Send a substitute delegate at no additional charge
- Incur a cancellation fee based on the following timescales:
  - If you cancel prior to 30 working days before the course you will be charged a cancellation fee of 20% of the course fee
  - If you cancel less than 30 working days, but prior to 10 working days before the course, you will be charged a cancellation fee of 50% of the course fee
- We regret that we cannot accept cancellations that are received less than 10 working days before the course start date.
- Please confirm your cancellation in writing.

Smallpeice Enterprises reserves the right to cancel courses if necessary. Delegates will be given advance notice of any such changes. Please do not send payment with this form – an invoice will be despatched.



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