Lean Sigma Manufacturing Green Belt

January 2019 programme:
Block 1: Jan 21 to 24 2019
Block 2: Feb 19 to 20 2019
Block 3: Mar 18 to 20 2019

March 2019 programme:
Block 1: Mar 25 to 28 2019
Block 2: Apr 30 to May 1 2019
Block 3: Jun 3 to 5 2019

Duration:	9 days
Fee:	£1950+VAT

Includes:
- Comprehensive training manual
- Smallpeice accreditation
- Lunches and refreshments
- Lean Sigma toolkit
- Access to Lean Sigma website

Venue:
Smallpeice is in central UK (Leamington Spa – CV32 4ES), with easy access:
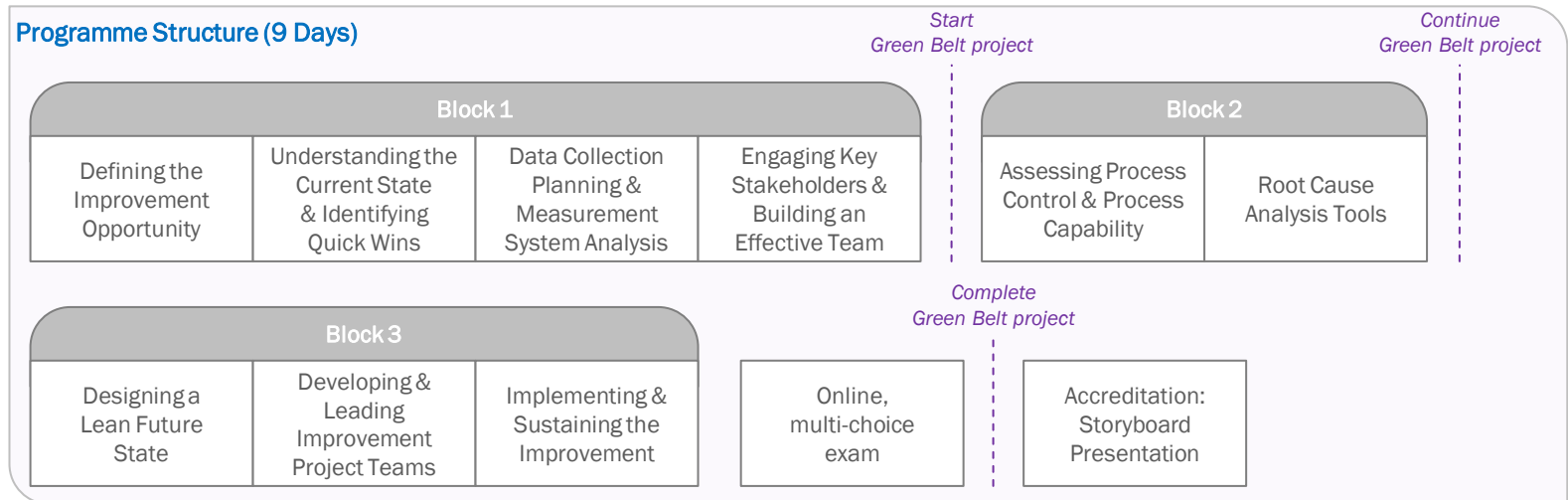- by road: from the M40
- by rail: a 5-minuite taxi journey from Leamington Spa station
- by air: just 25 minutes from Birmingham Airport

Introduction

This programme integrates Lean and Six Sigma to provide a powerful improvement model that concentrates on both reducing cycle time and variability. The programme is based on a modular format which combines training inputs and practical simulation activities with an ongoing focus on project progress and reviews. The training objectives focus on enabling delegates to:

- lead projects that deliver tangible organisational benefits
- be familiar and confident with the key tools and techniques of Lean Sigma and understand how to use them within day-to-day activities
- be effective team members on any Lean Sigma project team

Programme Structure (9 Days)

Start Green Belt project — *Continue Green Belt project*

Block 1

Defining the Improvement Opportunity	Understanding the Current State & Identifying Quick Wins	Data Collection Planning & Measurement System Analysis	Engaging Key Stakeholders & Building an Effective Team

Block 2

Assessing Process Control & Process Capability	Root Cause Analysis Tools

Complete Green Belt project

Block 3

Designing a Lean Future State	Developing & Leading Improvement Project Teams	Implementing & Sustaining the Improvement

Online, multi-choice exam

Accreditation: Storyboard Presentation

Accreditation

The Smallpeice accreditation process requires completion of a project for formal assessment and passing a multi-choice exam. The exam can be taken online after training is completed (revision and practice questions are also provided).

BQF Accreditation Option

Smallpeice courses are also licensed to BQF (British Quality Foundation) standards, enabling candidates to achieve this external accreditation. The accreditation steps are as described above, with an additional £250 fee to cover the BQF licensed accreditation route.

Coaching & Support

Coaching and support is available in the form of structured face-to-face coaching, or remote support via webex / phone. We also offer a pre-accreditation check which provides a detailed review of projects prior to accreditation submission. Please call to discuss these options in more detail.

Detailed programme overleaf

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V2.0-Lean Sigma Manufacturing Green Belt--public

Block 1

Defining the Improvement Opportunity	Engaging Key Stakeholders & Building an Effective Project Team	Understanding the Current State & Identifying Quick Wins	Data Collection Planning & Measurement Systems Analysis
Programme Introduction • Programme objectives • Improvement project roles and responsibilities **Improvement Roadmap** • Introduction to the Lean Sigma approach • The DMAIC project roadmap • Project selection criteria • Where are the biggest opportunities? – Pareto • Application of the DMAIC toolkit in daily work **The Define Phase** • Writing problem statements • Setting the project objectives • Scoping the project – concept of y =f (x) • Mapping the high level process – SIPOC mapping • Linking the problem to the voice of the customer • Defining critical to quality characteristics • Drawing up the project charter	**Enablers for Project Success** • Analysing enablers/barriers using force field analysis • Building and communicating the business case **Securing Project Sponsorship** • The role of the project sponsor • Identifying and engaging senior support **Engaging Key Stakeholders** • Stakeholder analysis tools • Influencing skills & dealing with initial resistance **Building and Managing the Project Team** • Selecting the team and assigning roles • Developing the project plan **Engaging the Team in Continuous Improvement** • Assessing and improving workplace organisation • Creating a visual workplace • The role of standards and process compliance • Encouraging everyday Kaizen	**The Measure Phase** • The difference between process bias and data bias projects **Value Stream Mapping (VSM)** • Defining value and waste: the 8 wastes • Defining value streams / Organising by value stream • Mapping the current state • Key value stream metrics • Facilitating mapping activities – hints and tips **Process Mapping & Process Analysis Tools** • Detail process mapping tools overview • Role of process mapping in DMAIC projects • Process flow & sequence charting techniques • identifying and implementing quick wins **Process Analysis using FMEA** • Identifying weaknesses in the process • Use of failure mode effects analysis (FMEA) to identify potential opportunities for defects • Evaluating reducing and managing risk	**Data Collection Planning** • Selecting what to measure • Key considerations for data collection planning • Deciding how to collect the data: an introduction to sampling techniques • Using operational definitions for data collection **Statistical Concepts & Minitab** • Describing data –measures of location, variation and shape • Communicating statistics to a non-technical audience • Introduction to Minitab software • Visualising descriptive statistics – graphical summary **Measurement Systems Analysis** • Checking the measurement system • Understanding measurement system variation • An introduction to gauge repeatability and reproducibility • Gauge R & R in Minitab **Next Steps Planning** • Project planning – define and measure

Block 2

Assessing Process Control & Process Capability	Root Cause Analysis Tools
Progress Review • Block 1 revision; project progress reviews **Base-lining the Current Process** • Key questions in the measure phase **Assessing Process Control** • Understanding different types of process variation • Anatomy & use of control charts / Applications of SPC charts **Assessing Process Capability** • Understanding process capability • Calculating process capability for continuous and attribute data • Selecting appropriate capability metrics & indices • Communicating statistics to a non-technical audience	**The Analyse Phase** • Introduction to the analyse phase • Process and data analysis roadmaps **Verifying the Root Cause: Data Analysis Toolkit** • Taking a structured approach to data analysis • Writing an analysis plan • Link to cause and effect diagram • 5 Why approach to problem solving • Stratifying the data – use of box plots • Are there any relationships? Scatter diagrams • Introduction to significance testing approach • Non-graphical methods for verifying the root cause • Project storyboard –tips for summarising and presenting the analysis

Block 3

Designing a Lean Future State	Developing & Leading Improvement Project Teams	Implementing & Sustaining the Improvement
Analysing the Current State Process • Balancing load & capacity: finding & analysing bottlenecks • Cycle time and workload analysis • Work in process & lead time analysis **Creating a Future State Map** • Creating a lean vision & a 'must be' list • Developing the future state map • Creating continuous flow • WIP control strategies / Push versus pull systems • Mistake proofing **Developing the Improvement Plan** • Application of FMEA to the future state • Optimising the solution • Developing the improvement plan	**Leading & Developing Improvement Teams** • Characteristics of effective teams & stages of improvement team development • Developing performing teams through effective leadership **Facilitating for Maximum Results** • Running effective workshops & meetings • Managing conflict; dealing with difficult people & situations • Adapting communications for groups **Implementing Change** • Putting the plan into action & managing resistance • Understanding people's response to changes **Embedding Change** • Maintaining momentum/Transferring ownership • Anchoring the change	**Improve Phase: Solution Generation & Piloting** • Challenges of the improve phase • Generating alternative solutions • The role of creativity in Lean thinking • Creative thinking tools • Evaluating and selecting the best solution • Piloting & solution introduction **Solution Introduction & Control** • Developing a control plan • Prevention & detection systems • Choice of control method • Out of control action planning • Handover & transferring benefits • Planning for continuous improvement