Lean Six Sigma Green Belt – QQI Level 7

QQI (HET) Certificate in Process Engineering
Special Purpose Award 7S20279
Level 7, 15 ECTS Credits (individual company project required)

This course is available for *virtual* delivery – please contact us for further details

1 face-to-face training day typically translates into 2 to 4 virtual sessions per day, this is determined by the specific course content. Number of sessions and specific session times will be confirmed in advance of course delivery.

Snapshot

Duration	Five day training programme
Course Times	9.00am - 5.00pm
Public Price	€2,540 (includes course documentation)
Accreditation Fees	€220 (QQI Assessment & Certification Fee)
Total Public Price	€2190
In-House Price	Available on request

Introduction

Lean Six Sigma has become the fastest spreading and most successful approach to Continuous Improvement across all industries regardless of size, position in the supply chain or service provided. An essential element of Lean Six Sigma roll-out is Green Belt training. This Lean Six Sigma Green Belt training course will expose delegates to the powerful tools and methodologies necessary to successfully lead and contribute to DMAIC improvement projects within the organisation.

SQT offers two QQI validated Green Belt programmes. This level 7 programme involves completing five training days and an individual company based project. Our other level 6 course involves completing five training days and a case study.

This course fully complies with the ISO 13053-1:2011 Standard.

What's covered?

Define

Aim - To successfully launch a Lean Six Sigma Green Belt project by refining a project charter, leading a project team, garnering support for the project from process stakeholders and ensuring a common understanding of the process across all project participants and stakeholders.

Learning Outcomes

Participants achieve the following learning outcomes from the programme:

- Explain the DMAIC methodology that the project will follow
- Create a narrowly scoped problem statement using data to quantify the problem and its impact(s) on the organisation
- Undertake high level process mapping to assess the requirements of internal and external process customers to ensure these are understood by all team members and align with project goals
- Lead a project team comprising of peers from different functions with whom the learner has an established working relationship.
- Review and refine the project charter to minimize risks to successful project completion
- Create a basic communications plan to ensure stakeholders are kept informed of the projects progress at regular intervals
- Create a basic project plan to ensure the project is completed on time (within six months of training completion)

Measure

Aim - To develop a factual and accurate picture of the current state of process performance, identifying areas of weakness within the process for further investigation and achieving 'quick win' improvements where possible.

Learning Outcomes

Participants achieve the following learning outcomes from the programme:

- Construct a suitable map of a process with the input of process experts (limited to Deployment, IPO, Flow Maps and Spaghetti maps)
- Identify waste and potential weaknesses in processes via analysis of process maps, brainstorming with process experts, observation or other suitable means.
- Prepare a basic data collection plan to gather data from the process to address areas of uncertainty among process experts.
- Examine the stability and capability of a process using historical process data
- Assess adequacy of process measurement systems and/or create operational definitions for new measures

Analyse

Aim - To understand the drivers of poor performance in a process and select focus areas for improvement actions.

Learning Outcomes
Participants achieve the following learning outcomes from the programme:

- Identify causal relationships in a process using basic graphical analysis and team brainstorming techniques (eg. fishbone diagrams)
- Complete 5 why root cause analysis to investigate systemic drivers of variation and/or waste in a process
- Examine possible sources of waste/variation to establish a shortlist for further investigation based on a variety of selection criteria
- Use basic graphical analysis of data to answer questions regarding shortlisted factors

Improve
Aim - To develop and implement optimum, sustainable solutions with minimum resistance from stakeholders in the organization

Learning Outcomes
Participants achieve the following learning outcomes from the programme:

- Lead team based solutions workshops using creative thinking techniques to identify many potential solutions
- Select appropriate solutions from a list of possible solutions
- Demonstrate the effectiveness of chosen solutions using pilot studies, test data or post implementation data
- Manage stakeholders resistance to proposed solutions
- Effectively implement planned changes following appropriate change control procedures, updating documentation and conducting training of existing personnel impacted by these changes, as appropriate

Control
Aim - To verify solutions have been implemented effectively and ongoing controls are institutionalized in the organisation

Learning Outcomes
Participants achieve the following learning outcomes from the programme:

- Standardise and simplify work practices to reduce potential for variation in process outputs
- Select appropriate control techniques for ongoing process control including statistical process controls as appropriate.
- Create a process control plan to identify responsibility for maintaining process performance at the new, desired level
- Compare the project results versus objectives. Communicate recommendations for further improvement and lessons learned from the project to project stakeholders and customers, as appropriate.

Who Should Attend?

This course is intended for front line problem solving personnel responsible for resolving process problems in day-to-day operations or responsible for leading Continuous Improvement teams. It is also intended for those working with Lean Six Sigma Black Belts on

major improvement programmes or looking for breakthrough performance in key business metrics. Companies are rapidly realising that a Continuous Improvement Program and skilled practitioners to drive it is no longer optional but an absolute necessity if they are to survive and prosper in the long-term. Members of Engineers Ireland who attend this course may claim for CPD hours from Engineers Ireland.

Entry Requirements

- Level 6 Advanced/Higher Certificate/ Lean Six Sigma Green Belt Special Purpose Award (Level 6) **or**
- A person who has demonstrated the achievement of this level by accredited prior experiential learning (APEL)
    - Suitable project to complete during training
    - Fundamental competence in basic Microsoft Office suite of software
- A laptop with the most recent version of SigmaXL software.
  (On Public courses, this software will be supplied to delegates by SQT and is included in the course fee. On In-House courses, SQT can supply the software licences if required or should your organisation currently use an alternative software package (such as SPCXL or Minitab) this can be used)
- All applicants are required to demonstrate a high level of competence in the English Language. International Students whose first language is not English must provide evidence of equivalent competence in English Language of greater than or equal to B2+ in the Common European Framework of Reference for Languages (CEFRL).
- Skills that are considered necessary for successful participation in the programme include:
    - willingness to learn (reading, research)
    - good communication skills
    - ability to self-direct

What will I learn?

The aim of the programme is to produce graduates who possess the pre-requisite knowledge of theory and practice of Lean Six Sigma to enable them to participate in process improvement efforts in their organisations. This includes successfully leading a Green Belt Team and contributing in a practical and value-added manner to a Black Belt Team Project.

Participants achieve the following learning outcomes from the programme;

- Have a good understanding of a variety of graphical and team based problem solving tools and the manner in which these are combined in the process of solving well defined and narrowly scoped business problems
- Have a good understanding of basic statistical concepts while recognising limits of current knowledge
- Be able to apply well established technical and creative tools to solve well defined and narrowly scoped process problems

- Be able to participate in the planning and management of well defined and narrowly scoped process engineering projects
- Be able to employ an investigative and data driven approach to establish the source of well defined process engineering problems
- Be able to identify, and plan for effective implementation of, solutions to a variety of well defined process engineering problems
- Be able to work effectively as a leader of a cross functional problem solving team, taking responsibility for the work of team members
- Have a good appreciation of the importance of effective communication in managing organisational change
- Demonstrate, through successful completion of a narrowly scoped process engineering project, that the learner understands the discipline of the DMAIC approach and can deliver meaningful financial (target €30k p.a.) and/or customer benefit for the learners employer

Teaching / Learning

This course is a taught course over five days. Delegates then complete an individual Lean Six Sigma Green Belt project which, using the DMAIC methodology, will realise the project goals and objectives for their company. Delegates have up to 6 months following training to complete their final written project report.

This classroom based course is highly interactive and uses practical exercises to reinforce tool understanding and learning. The training is enhanced by the vast experience of the tutors who have trained hundreds of Green Belts and Black Belts as well as completing numerous transactional and manufacturing projects themselves.

Lean Six Sigma Green Belt Training is challenging in terms of content and time requirement. A 'rule of thumb' for QQI validated HET (Higher Education and Training) programmes is that one credit is equivalent to approximately 25 'learner effort hours'. 'Learner effort hours' include training days, time spent at project, time spent studying/reading, learning on the job.

Mentoring
Throughout the training and right through to project completion, Green Belt candidates will receive support and mentoring from their tutor.

Company Support
For companies embarking on a new Lean Six Sigma deployment, a 1 day 'Introduction to Lean Six Sigma' and a 2 day 'Lean Six Sigma Champion' training is available for company personnel, as required.

Free Access to Online Resources
SQT provide learners with access to a free online platform. The online system provides learners with access to a wealth of learning resources (such as course notes, presentations, additional reading, templates, screen casts and links to useful websites). Learners can also upload assessments and receive feedback from Tutors via the system.

Lean Six Sigma Network
Lean Six Sigma Practitioners will be invited to join the Lean Six Sigma Network where they will receive ongoing support and development in their role as a Lean Six Sigma leader and practitioner, as well as network with other companies rolling out Lean Six Sigma initiatives. Meetings are held quarterly.

How will I be assessed?

Delegates are required to complete an individual Lean Six Sigma Green Belt project which, using the DMAIC methodology, will realise the project goals and objectives for their organisation.

Assessment is based on:

1. Project Proposal (20%) consisting of
    a. Project Charter (An initial draft of the Project Charter must be submitted to SQT prior to commencement of training. Comprehensive guidelines on project selection and a sample Project Charter will be supplied in advance to all course delegates)
    b. Project Plan
2. Written Project Report (80%) – includes a Project Story Board.

Comprehensive guidelines will be given during the course to all delegates. The delegate has up to 6 months following training to complete their final written project report.

Course Accreditation

This course is validated by QQI at Level 7 on the National Framework of Qualifications. Successful delegates will receive a Special Purpose Award, Certificate in Process Engineering (15 ECTS Credits).

Awards made by QQI are on the National Framework of Qualifications (NFQ). The NFQ provides a way to compare qualifications, and to ensure that they are quality assured and recognised at home and abroad. Qualifications (awards) in the NFQ are recognised in Ireland and abroad.

This programme can be used as a basis for applying for ASQ (American Society for Quality) certification. Delegates can sit the ASQ Green Belt certification examination. Some further self-study will be required. ASQ certification is a formal recognition by ASQ that an individual has demonstrated a proficiency within, and comprehension of, a specific body of knowledge.

All QQI accredited programmes of education and training of 3 months or longer duration are covered by arrangements under section 65 (4) of the Qualifications and Quality Assurance (Education and Training) Act 2012 whereby, in the event of the provider ceasing to provide the programme for any reason, enrolled learners may transfer to a similar programme at another provider, or, in the event that this is not practicable, the fees most recently paid will be refunded. If transferring to another provider to facilitate programme completion, all learner records will be transferred.

Progression

Delegates may progress to SQT's Black Belt programmes.

Expert Course Tutors - Profile & Testimonials

ASST

In-House Courses

For In-House courses, the tutor will contact you in advance to discuss the course programme in more detail in order to tailor it specifically for your organisation.

Course Manual

Delegates will receive a very comprehensive course manual as well as access to SQT's Moodle VLE (Virtual Learning Environment).

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