



## SIX SIGMA - GREEN BELT ASQ

(10 DAY)

“Measurement is the first step that leads to control and eventually to improvement. If you can't measure something, you can't understand it. If you can't understand it, you can't control it. If you can't control it, you can't improve it”

H. JAMES HARRINGTON

### COURSE OVERVIEW

Six Sigma originated in the U.S. in the mid-nineties and was adopted by GE to deliver significant bottom line savings to the business. Six Sigma focuses on process variation and aims to develop predictable processes through the application of a structured methodology. This eight day programme is run over 3 months



and will enable participants to successfully complete business process improvement projects. The project work is supported by two on-site mentor sessions. Participants will sit the ASQ examination - There are 100 questions on the 4-hour examination

### WHO SHOULD ATTEND?

Green belts should be individuals within an organisation who are tasked with process improvement.

### WHAT WILL I LEARN?

- The concept and origins of Six Sigma.

- The most important tools used in Define, Measure, Analyse, Improve and Control phases of business process improvement.

- An introduction to data collection, analysis and presentation through the use of statistical software.

### PROGRAMME OUTLINE

#### PHASE 1

History and principles of Six sigma  
Fundamentals: DPMO, Sigma, Variation, Roles and responsibilities, Quick Wins  
Project Charter  
Mapping the process  
Understanding the Customer  
Stakeholder Analysis &  
Communication planning

#### PHASE 2

Data collection  
Baseline performance  
Measurement and basic statistics  
Pareto charts, Histogram toolset, Normal distribution  
MSA (Measurement System Analysis)  
SPC (Statistical Process Control)  
Charting, control charts, Process capability

#### PHASE 3

Data Analysis, Statistical analysis, Types of Error  
Hypothesis testing, T-test, ANOVA tests, F-test, Chi square  
Graphical charting  
Root Cause Analysis,  
Brainstorming intro  
Regression and correlation analysis  
Multiple regression analysis



#### PHASE 4

Improvement tools  
Corrective Action Matrix, Cause and effect Matrix  
8D and A3 reports  
Generate, evaluate and select solutions  
Benchmarking  
FMEA and Risk assessment  
Error proofing  
Pilot solution and confirm results  
Fundamentals of Change Management

#### PHASE 5

Long term process capability  
Monitoring, Escalation, Control Plans, Standardisation  
Balanced scorecard / dashboard  
Documentation, Storyboard  
Lessons learned, Develop change Implementation plan  
Project Closure, Hard and soft savings, Handover to Process Owners

### DURATION

8 classroom days  
2 Mentor Days

### ASSESSMENT & CERTIFICATION

ASQ Green Belt Certificate

“It was a great programme and is a great benefit to our work place”

ORLA, PRODUCTION SUPERVISOR