



Process Management International

# Six Sigma Black Belt Conversion

## Take Your Capabilities Even Further

This powerful course develops the specialist Six Sigma and statistical skills to operate at the forefront of the six sigma deployment environment. Consisting of 10 days classroom work over two months, the coursework is integrated with a project to embed the learning and ensure payback on the investment.

PMI's Six Sigma Black Belt takes the toolset further, giving deployment much higher profile, ensuring that efforts are applied to critical problems and strategic issues and developing a programme management and support structure. Financial justifications are more rigorous and close tracking by finance departments has reported gains running into many millions.

### What's included?

- Pre-course webinar with the course tutor and other delegates
- 12 month access to the Online Yellow Belt
- 12 month access to the Essential Tools for Improvement Series
- Full Reference Manuals
- A copy of The Process Manager Handbook of tools and techniques
- A project review and exam session day

### Six sigma projects

Improvement projects are the engines of Six Sigma programmes and a vital component of the PMI's Black Belt programme. They should be selected by the steering team as a result of analysis of the whole system, in the context of the strategic goals and current vital issues. Their successful implementation is a critical part of achieving the business case.

### Green Belt Qualified elsewhere?

We offer a pre-Black Belt assessment process for the Black Belt Conversion Course designed for delegates who have taken a Green Belt course either with another provider or internally.

### How long does it take?

2 modules of 5 days divided by about a month.

### What are the benefits?

Delegates will find this a rejuvenating experience, adding new impetus to their capabilities. Upon successful completion of the programme and project, delegates will be able to use a range of powerful additional tools.

### Who should attend?

Those who want to take their qualifications up to the next level.

Highly motivated individuals working in improvement.

Graduates of PMI mastering process improvement (500 series) or PMI Six Sigma Green Belt.

Delegates who have attended a Green Belt with another vendor.

Those who are confident in working with complex numbers and statistics.

Delegates must bring a laptop computer and Minitab software (available through PMI)

### How can I do it?

As an in-house programme in your organisation.

As part of our public training programme in London, Birmingham or Manchester.

“ This course will empower you to identify the true issues that need to be resolved within your business and will change your thinking around process improvement. ”



Find out more at [www.pmi.co.uk](http://www.pmi.co.uk)

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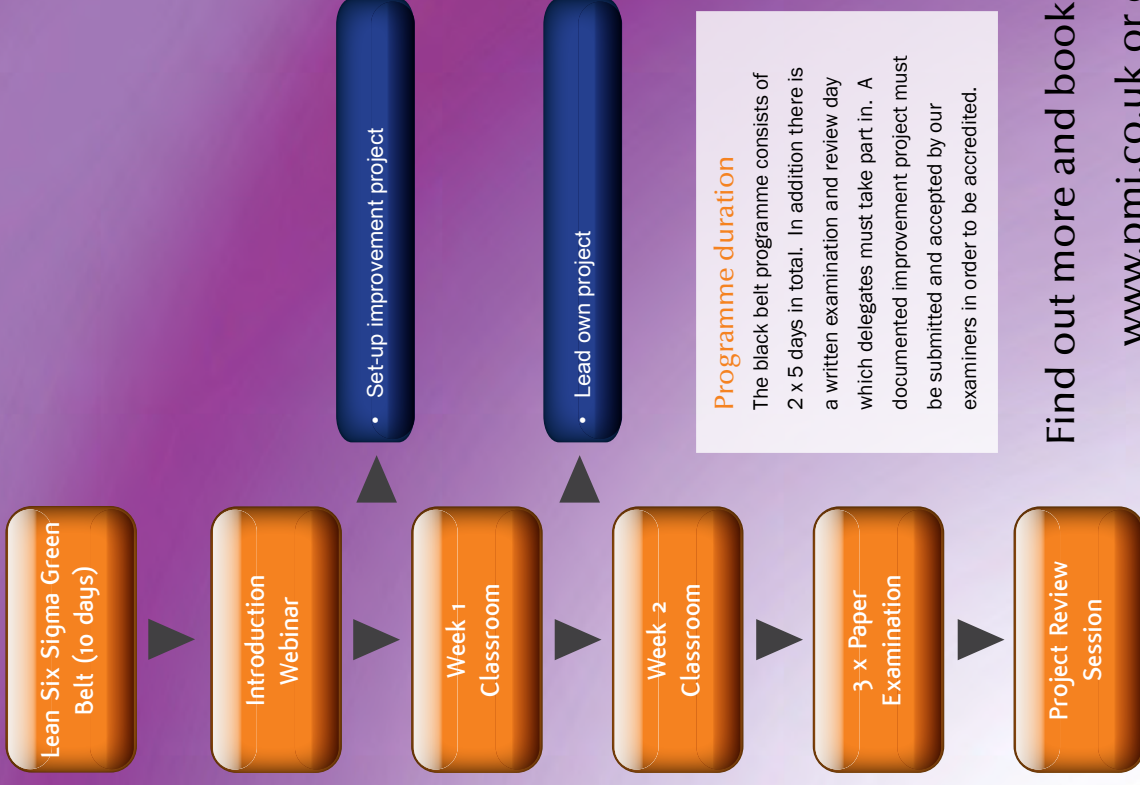
## Week 1

- Introduction to Six Sigma
- The need for organisational cultural change and the process to make it happen
- Customer focus and affect on organisations
- The roles of black belts and other key players in the six sigma programme
- Process improvement learning cycles and other models to support improvement projects (PDSA, DMAIC)
- Six Sigma metrics include Defects Per Million Opportunities
- System view of the business
- Linking a learning philosophy to process improvement
- The role of chartering and contracting in project selection
- Requirement of leadership in the change process and how to intervene effectively
- Additional control charting techniques:
  - p, np, c, u
  - charts for processes with trends
- Advanced statistical measures such as chi-squared, T-tests, ANOVA, regression analysis and associated tools to investigate and verify causes of variation
- Strategies to deal with short run SPC
- Introduction to Minitab
- Role as a Green Belt coach
- Consulting and influencing skills
- Handling subjective data

## Week 2

- Solution generation tools including Triz
- introduction to design of experiments.
  - DoE – full factorial
- Ensuring project engagement and avoidance of pitfalls of change challenges
- Executive and champion reviews
- Advanced regression
- Communication skills
- FMEA
- Sampling, sample size and Power
- Project Reviews
- Case Studies
- Further hypothesis testing
- Implementation planning
- Process performance and capability
- Effects of non-conformance using the Taguchi loss function and the importance of setting the process aim

## Course Structure



### Programme duration

The black belt programme consists of 2 x 5 days in total. In addition there is a written examination and review day which delegates must take part in. A documented improvement project must be submitted and accepted by our examiners in order to be accredited.

Find out more and book online at

[www.pmi.co.uk](http://www.pmi.co.uk) or call us on

+44 (0)1676 522 766