

## Lean Six Sigma CEPAS Lean Six Sigma Black Belt ISO 18404 - Upgrade - Virtual Classroom



### In a nutshell

A certified Lean Six Sigma Black Belt is a professional who is trained in Lean Six Sigma methodologies and tools and can implement and sustain high-impact projects.

The Lean Six Sigma Black Belt course was developed for individuals looking to be trained to an advance level in Lean Six Sigma methodologies. This course will equip you with the skills and knowledge needed to successfully lead complex improvement projects in all areas of a business.

This course is available as part of a Personal Learning Account (PLA). PLA is an initiative from the Welsh Government which offers people the chance to access free, part-time courses with flexible and convenient learning that fits around their existing lifestyle (subject to eligibility).

### This course is for...

... anyone aged 19+, living in Wales, in employment, looking to take the next step to a great career



# COURSE INFORMATION LEAFLET

... those who are currently working in more senior job positions such as Team Leader, Project Manager or Quality Assurance, Process Improvement, Supply Chain, Production, Business Analysis or Lean roles

... those who have completed the Lean Six Sigma Green belt previously

## Course content

This course is delivered by virtual classroom. Virtual classrooms are equivalent to face-to-face classroom courses, but delivered in an online environment.

Course Duration: 5 days

Throughout the course you will learn the following:

Lean Fundamentals  
Six Sigma Fundamentals  
Voice of the Customer (VoC)  
SIPOC  
Introduction to Value and Value Stream Mapping  
Identifying Waste  
Introduction to Flow and Pull  
Root Cause Analysis  
Exam Practice Quiz

DMAIC methodology  
Introduction to Six Sigma Statistics  
Measurement System Analysis  
Introduction to Statistical Process Control (SPC)  
Exam Practice Quiz

Introduction to Minitab  
Pareto Charts and 80/20 rule  
Kano Analysis  
Pugh and other X-Y Matrices  
Six Sigma Statistics  
Measurement System Analysis

Process Capability  
Inferential Statistics

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Correlation and Regression Analysis  
Intro to Hypothesis Testing  
Design of Experiments  
Mock exam practice

Review of mock exam and exam preparation

The Role of a Black Belt  
Advanced use of DMAIC  
Risk Analysis for Black Belts  
Change Management  
Hypothesis Testing Non-Normal Data  
Advanced Regression Analysis

Advanced Design of Experiments  
Fractional Factorial Experiments  
Response Surface Methods and Method of Steepest Ascent / Descent  
Prep Black Belt exam #2 (equivalent to Green Belt)

Review of mock exam  
Final exam preparation

## Entry Requirements

Learners should consider this course if they have completed the Green Belt and want to enhance their skills and understanding.

This will help them excel through their career and get more advanced roles such as a senior manager. The Black Belt level provides the means for all individuals to mentor, advise, and support all Yellow and Green Belts while carrying out senior project tasks.

You will need access to internet, a windows computer and webcam/microphone

## Additional information

The PLA programme intends to provide quality career advice and guidance to participants before, during and after their learning.

Prior to being enrolled onto your PLA funded course, a individual learning plan will be

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discussed with you to ensure that the right learning has been considered.

This will include a general discussion on the following topics:

formal education or qualifications in related fields

prior experience within the industry or field

career aspirations

dedication of time required

access to internet, windows computer and webcam/microphone

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