



UniSA | Business



# EXECUTIVE EDUCATION SIX SIGMA BLACK BELT

## OVERVIEW

UniSA's Six Sigma Black Belt program has been developed in alignment with the American Society for Quality (ASQ) standards and prepares participants to become certified as a Six Sigma Black Belt. Black Belts implement the principles, practices, and techniques of Six Sigma to consistently deliver breakthrough business improvement results.

This program provides an advanced understanding of the Six Sigma methodology, a proven and systematic application that is focused on achieving significant financial results. When correctly deployed on carefully selected business projects, this methodology can lead to a significant reduction and elimination of defects and out-of-control processes, which saves valuable corporate resources and translates into immediate profitability. A Black Belt can typically direct four to six projects per year, creating significant cost reductions for the organisation.

## PROGRAM BENEFITS

### Individual

- Become equipped with the skills and knowledge to boost organisational performance and bottom line profits through increased efficiency, productivity and competitiveness;
- Identify how to eliminate waste and defects by learning how to execute and apply the Lean and Six Sigma methodologies;
- Gain the knowledge and skills to plan and implement process controls to sustain project gains in the workplace;
- Identify how to collect process data and develop process maps. Learn from American Society for Quality certified Master Black Belts who are hands-on practitioners with extensive experience of Six Sigma application.

### Organisational

- Six Sigma can lead to significant reduction in and often elimination of defective processes;
- Green Belts serve as the work team for Black Belt projects, collecting and analysing data, developing process maps and in carrying out design of analysis and experiments;
- Improvements translate directly to immediate and dramatic financial profitability;
- Achieve improvement project outcomes within your organisation;
- Support and accelerate progress in every project to help maximise the organisation's return on investment, adding capacity and a greater number of breakthrough improvement projects.

## ASSESSMENT

There is no assessment; however, participants will have the knowledge required to attempt the American Society for Quality Certified Six Sigma Black Belt Exam.

Upon successful completion of the program, participants will be awarded a Certificate of Completion.

## ENROLMENT

Enrolments for the Six Sigma Black Belt program can be submitted via the online enrolment platform. To learn more or enrol in the program, please visit [unisa.edu.au/six-sigma-black-belt](http://unisa.edu.au/six-sigma-black-belt)

## SNAPSHOT

**Program Length**.....10 Days  
(2 x 5-day modules)

**Delivery Mode**.....Face-to-face

### Who is this program suited to?

Improvement project facilitators, change managers and consultants and mid-level leaders.

Also available as a tailored program for organisations.

## PROGRAM OUTLINE

The program is a blend of lecture-style sessions, application of theory, and individual and team-based exercises over the two blocks of five-days. You will be trained in the use of the Six Sigma methodologies to achieve breakthrough improvements in quality.

### Week 1: Lean Six Sigma Theory and Leadership

- Measurement System Analysis (advanced);
- Process Capability (advanced);
- "X" Sifting;
- Confidence Intervals;
- Introduction to Hypothesis Testing;
- Hypothesis Testing Non-Normal Data;
- Advanced Process Modelling.

### Week 2: Data Analysis, Experimental Design and Process Mapping

- Experimental Methods;
- Full Factorial Experiments;
- Fractional Factorial Experiments;
- Advanced Experiments;
- Capability Analysis;
- Design for Six Sigma;
- Defect Controls.
- Acceptance Sampling.

## EQUIPMENT

Participants are required to bring their own laptop, with a working, licensed copy of a recent version of Minitab software.

## ENTRY REQUIREMENTS

Participants are required to have successfully completed the UniSA Six Sigma Green Belt program (or equivalent approved offering), in order to gain entry into the Six Sigma Black Belt program.

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***"I found the course to be an excellent, well-paced series of modules to acquire an in-depth understanding of the Six Sigma Body of Knowledge and the skills to apply it effectively. The course incorporates numerous case studies and tutorial problems to solve in an interactive, classroom environment. I would highly recommend this course, it is comprehensive, recognised internationally and has the credibility that sets it apart from other shorter courses."***

**Robin Barlow, past participant, Carl Zeiss Vision**

