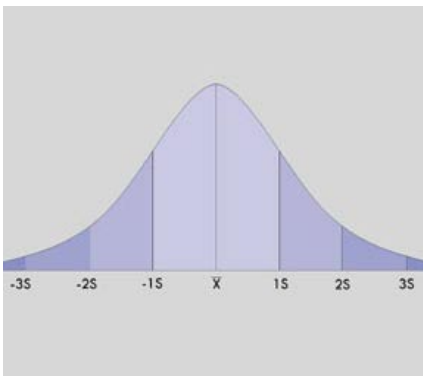


Six Sigma Statistical Fundamentals



Statistical thinking – the key to Six Sigma

A familiarity with statistical concepts is a requirement to really get benefits from Six Sigma programs. This workshop lays the groundwork to let you get a grasp on dealing with data.

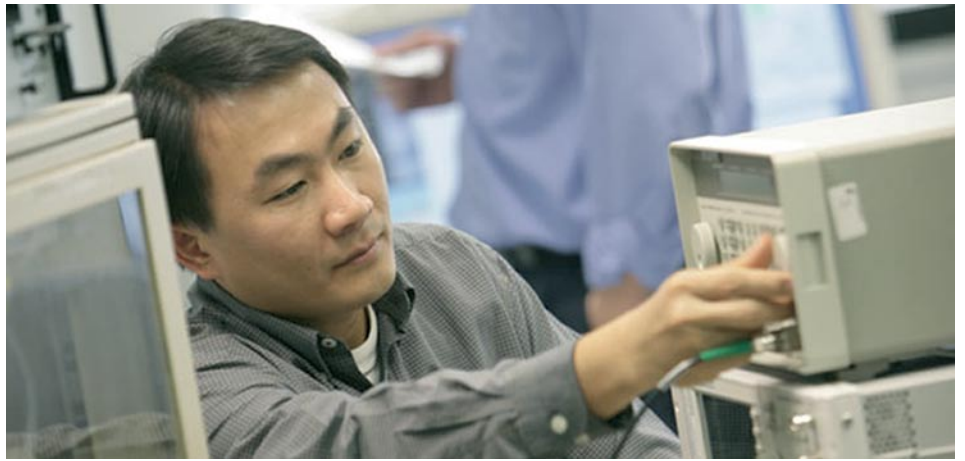
This workshop is specifically designed to provide prospective Green and Black Belt candidates and business improvement managers with the necessary foundation statistical skills.

Enrol Today

This **two-day workshop** is designed to provide participants with a basic understanding and **basic foundation in statistical methods** for a smoother transition into further study in **Six Sigma Green & Black Belts**. The workshop will also prove valuable to those who want to **demystify the terminology** and understand basic Six Sigma methodologies.

The history of Six Sigma stretches back over eighty years, from before we all become aware of early Japanese breakthrough using “Total Quality” efforts in the 1970s and 1980s and more recently Motorola’s success using Six Sigma management techniques. Six Sigma is a methodology that provides organisations with the tools to improve capability of their business processes. This increase in performance and decrease in process variation leads to significant defect reduction, improvement in profits, employee morale, and quality of products and services. The goal of Six Sigma is to improve business profit by helping people and processes deliver defect-free products and services. Today, Six Sigma is acknowledged as one of the most powerful methodologies available to enhance enterprise performance.

Often the thought of using these statistical techniques can be a barrier to its use, especially for those who don’t have a mathematical background or haven’t used statistics for some time. The focus of this workshop is on providing the required theoretical grounding and illustrating the use of statistical methods using applied examples.



Workshop Content and Learning Objectives

Our Master Black Belt presenters have spent many years applying Six Sigma in Motorola and other organisations and draw from this experience to provide a well balanced learning environment combining their statistical knowledge with practical experience in application and getting great business results.

You are encouraged to bring, workplace issues and data with you for analysis during this workshop.

Day 1

What are Statistical Methods?

An introduction to the ideas of statistics: What the methods are used for and why.

Basic Statistics

Frequency distributions, Descriptive statistics, Probability.

Day 2

Probability Distributions

Continuous and discrete distributions: Binomial, Normal.

Statistical Inference

Confidence intervals, Hypothesis testing, Correlation.

What we supply

- A comprehensive set of workshop notes.
- Case study data and files for examples and simulated use during the workshop.
- The book – Gonick L & Smith W, *The Cartoon Guide to Statistics*, 1993, Harper Collins, NY.
- Lunch and refreshments each day.

You must bring with you

- A laptop with Windows, Excel and Minitab 15 software loaded (30 day trial copies are available at <http://www.minitab.com/downloads/>).
- You need to prepare by reading the supplied book.
- This book will be supplied as soon as your registration has been accepted.

Six Sigma management is used by many companies around the world and uses the DMAIC model that contains five phases: Define, Measure, Analyse, Improve, and Control. Statistics are an essential ingredient in organisations and provide the platform for sound decision making and improvement. The purpose of this workshop is to enable you to learn enough so that you will be able to use basic statistical methods and prepare you for further Green and Black Belt study and Six Sigma management.