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Course ID: S11M

STATISTICAL PROCESS CONTROL (SPC) WITH MINITAB

Two-day onsite workshop

1. What is this course about?

SPC involves the collection and analysis of data in order to understand process behaviour, manage variation and control the process outcome. This two-day workshop provides an introduction to basic and popular SPC techniques, using Minitab statistical software.

Lean Ireland consultants are experienced in the training and coaching of personnel, from a wide variety of sectors, in the use of Minitab for the statistical measurement, analysis and control of process problems.

2. What will you achieve?

At the end of this workshop participants will

- understand the principles and practices of good data collection and sampling
- understand the nature and causes of variation
- be able to apply techniques that identify and quantify process variation
- have confidence in assessing and applying the methods used to measure and modify process behaviour.

On completion of the course, you will receive a Lean Ireland certificate of completion.

3. How will you be supported?

During this onsite workshop, you will be able to

- a) listen to and interact with the course tutor and other participants;
- b) work through Minitab exercises;
- c) ask questions and complete in-course quizzes, and
- d) download soft copy presentation files, with data sets and case studies, for your own future use.

The course is case study based. Participants will require laptops preloaded with Minitab. If a participant does not have immediate access to Minitab in-house, a 30-day free Minitab trial is available online at www.Minitab.com.

The Lean Ireland tutor will be available to provide follow-up support online, following course completion.

4. Workshop agenda

Time	Day 1	Day 2
08:30	Introductions Descriptive statistics: Measures of location and variation Introduction to Minitab Data types & data collection Measurement system analysis - variable data	Confidence intervals Control charts - attribute data <ul style="list-style-type: none">- SPC defectives (np & p)- SPC defects (c & u) Control plans Process capability analysis – intro Short term process capability Cp capability index
12:30	Lunch	Lunch
13:30	Control charts – intro Control charts – variable data <ul style="list-style-type: none">- SPC charts individuals data (ImR)- SPC charts samples data (XbarR & XbarS)	Process capability analysis Cpk capability index Long term process capability Pp and Ppk indices Review & close
16:30	Review & close	Review & close

The course agenda can be modified to suit the organization's needs.

5. Who is this course for?

The course is designed for those who have a need to use statistical monitoring of processes in their everyday work e.g. engineers, team leads, lab analysts and sales personnel. A basic knowledge of statistics (e.g. normal distribution, standard deviation, histograms) is required to attend this course. The content can be modified to provide a more basic introduction, or a more advanced challenge.

6. Tailoring the course for your organisation

The course content can be tailored to suit your organization e.g. the course can be facilitated using SAS JMP. Also, Lean Ireland tutors provide onsite consulting services in DOE design and execution. Please contact us to discuss your needs.

7. Where can you find out more?

Please contact Bernie Rushe at Lean Ireland,
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