**Category:**

Process Improvement Tools / Technical Skills

**Course Prerequisite:**

None

**Course Length:**

16 hours

**Materials:**

Minitab or JMP Statistical Software (can be downloaded on a trial basis if necessary).

**Cancellation Policy:**

Less than 14 days, 50% non-refundable , less than 7 days 100% non-refundable

**Minimum Number of Students:**

6

**Maximum Number of Students:**

16

**Delivery:**vILT or cILT  
(virtual or classroom)

**Pre-work:**None

**Statistical Process Control (SPC)**

**Course Description**SPC is an effective method to control processes but also the foundation for continuous improvement. This course provides participants with the basic statistical techniques and strategies for process control and improvement. Participants will gain knowledge of the fundamentals of process improvement, concept of variation, and statistical control, be introduced to statistical software, and learn other simple but powerful statistical techniques.

This course emphasizes the concepts that motivate and underlie the techniques along with practical advice for implementation so that the participant can effectively use these techniques on their own processes. In addition to on-line SPC, this course points out the use of off-line SPC as the foundation for more advanced data analysis methods.

**Who Should Attend**This course is designed for engineers, quality professionals, researchers, and managers who need to understand and use statistical control methods.

**Learning Objectives**Through training, participants will:

* Know the difference between common and special cause in order to correctly decide when an unwanted process change has occurred so that appropriate root cause corrective action can be taken.
* Identify specific areas of opportunity for SPC implementation within their companies
* Achieve an in-depth understanding of the concepts underlying SPC including using statistical software to gain information about center, spread, and shape to improve process characterization
* Examine the necessary steps in implementing effective SPC, including selecting the right SPC chart for their type of data and out-of-control action plans (OCAPs)
* Know how to apply the concept of capability so that continuous improvement actions can effectively be identified and efforts focused on centering, reduction of variation, or stability improvement