



Statistical Process Control for Operators

Course Overview

A successful SPC program requires Process Operators who understand not only the “what” of SPC but also the “why.” This workshop provides participants with the hands-on application they need to understand the benefits of SPC, how to use the tools, and most importantly, how to interpret and analyze the results of control charting and capability studies in order to control and reduce variation in their processes. Once an organization has used the Working with SPC program to develop a plan for implementation, this workshop can be used to provide focused training for Process Operators on the specific charts and techniques being applied to their processes.

How You Will Benefit

By the end of the course, you will be able to:

- Understand the role of SPC in the quality improvement process
- Use key characteristics for process monitoring
- Use a data collection plan
- Chart data for control charts
- Use patterns and signals on control charts to identify process changes
- Interpret a process capability study
- Use Pareto charts and Cause and Effect Diagrams to diagnose and solve process problems

Who Should Attend

Process Operators who will be using SPC in their workplace and need to understand why SPC is being used and how to apply the tools and techniques for controlling and analyzing variation.

Prerequisites

There are no prerequisites for this training class.

Course Duration

This program will take 8-hours to complete.

Training Program Fees

ETI Group can present this training program at your facility. Your cost, including all workshop materials and workbooks for up to twelve participants is \$2,750. Please note that this training program and materials can be “tailored” to meet any requirements unique to your company.

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Course Curriculum

Module 1. Why Use SPC	General Introduction Reasons for and benefits of implementing SPC How SPC will further the organization's mission How is SPC is used in Daily Work Life
Module 2. Defining the Process	General Introduction What Is a Process? Creating a Process Model Identifying Process/Product Characteristics
Module 3. Measuring the Process	General Introduction What Is Process Measurement? Why Measure? What Gets Measured? How To Measure Characteristics of Good Measurements Measurement Accuracy and Precision
Module 4. Using Statistics	General Introduction Why Use Statistics? What Are Frequency Distributions? What Are Histograms? Average, Range and Standard Deviation Characteristics of a Normal Distribution Common and Special cause Variation Key Learnings
Module 5. Control Charts for Variables	General Introduction Why Use Control Charts? Variable Data Control Charts Plotting a Run Chart Plotting X-bar and R Charts Plotting X-bar and s Charts Plotting IX and MR Chart Key Learnings



Module 6.
Control Charts for Attributes

- General Introduction
- Attribute Data Control Charts
- Plotting p Charts
- Plotting np Charts
- Plotting u Charts
- Plotting c Charts
- Key Learnings

Module 7.
Identifying Patterns and Trends

General Introduction
Identifying Patterns and Trends
Determining if a Process is in or out of Control
When to take Action

Module 8.
Determining Process Capability

General Introduction
What is Process Capability and why is it Important?
Determining if a Process is Capable
Estimating the Percent Defective Output of a Process

Module 9.
Diagnosing the Process

General Introduction
Why Diagnose the Process?
What is the Pareto Principle?
Building and Interpreting a Pareto Chart
Building Cause and Effect Diagrams
Key Learnings