Statistical Process Control (SPC)

Course Description

This 1-day Statistical Process Control (SPC) course provides participants with the knowledge and skills to monitor, control, and improve manufacturing and service processes using statistical methods. SPC is a proven methodology that uses control charts and data analysis to detect variation, identify process issues, and prevent defects before they occur.

Through interactive lectures, real-world examples, and practical exercises, participants will learn how to select the right control charts, interpret process behavior, and take corrective action when needed. The course emphasizes the financial benefits of SPC, including reduced scrap and rework, improved productivity, lower warranty claims, and enhanced customer satisfaction.

Course Objectives

Understand SPC Fundamentals:
– Define SPC and its role in quality management.
– Differentiate between common cause and special cause variation.

Select and Use Control Charts:
– Identify the correct control chart for variable and attribute data.
– Establish control limits and interpret chart signals.

Apply SPC for Process Improvement:
– Monitor process stability and capability.
– Implement corrective actions to prevent defects and reduce variation.

Link SPC to Financial Performance:
– Quantify savings from reduced waste, scrap, and downtime.
– Demonstrate ROI through improved process efficiency.

Integrate SPC into Continuous Improvement:
– Use SPC data to support Six Sigma, Lean, and other improvement initiatives.
– Drive long-term process control and optimization.

Training Length

Day 1: Introduction to SPC principles, selecting and constructing control charts, hands-on exercises interpreting charts, linking SPC to financial outcomes, and building an action plan for implementation.