

# STATISTICAL PROCESS CONTROL (SPC)



## Objectives

This interactive course will enable the participants to:

- Understand the principle and concept of SPC, and correctly apply this methodology for use in their own working environment.
- Apply a structural approach to any improvements and problem-solving processes and formalises the mental discipline during these processes.
- Outlines the SPC philosophy, implementation strategies, tools and techniques and describes the provisions for implementing an SPC system in the manufacturing industry

## Duration

2 days | 9am – 5pm | 14 hours

## Who should attend

Anyone involved in maintenance, marketing, design, and process control and improvement activities and also particularly for individual that is responsible for planning, developing or managing a quality system to satisfy the ISO 9001 or IATF 16949 quality system requirements.

## Course Fees

Member: S\$444.05  
Non-Member: S\$465.45  
*Registration Fee of S\$17.12 apply*  
*SDF funding & SkillsFuture applicable*  
*All fees stated are inclusive of 7% GST*

## Award of Certificate

Certificate of Completion will be issued to participants who have attended at least 75% of the course.



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## Course Contents

### Chapter 1: Fundamentals of Statistical Thinking

- 1) The role of statistics in quality improvement
- 2) Core fundamentals of statistical thinking
  - Binomial distribution
  - Poisson distribution
  - Normal distribution
- 3) Data based decision – making
  - Data type (variable and attribute)
  - Stratification in data analysis
  - Population Vs Samples

### Chapter 2: Data to Information

- 1) How to collect data
- 2) Check Sheet
- 3) Central tendency and dispersion
- 4) Measure of variability (Range & Sigma calculations)
- 5) Applications

### Chapter 3: Process Control Charts

- 1) Process Variations Concepts
- 2) Control chart for variables (X bar – R Chart)
- 3) Control chart for attributes (p chart, np chart, c chart, u chart)
- 4) Cases of Variation (Common & Special)
- 5) Trends and Patters interpretation of Control Charts
- 6) Application of Control Charts

### Chapter 4: Process Capability

- 1) What is process capability analysis
- 2) Definition of CP (Capability Ration)
- 3) Definition & Interpretation of CPK
- 4) Applications of process Capability



Please refer to this URL  
<https://www.sqi.org.sg/courses/>  
or QR Code for soft copy  
and updated training schedule

### Membership Application

Register membership online at  
[www.sqi.org.sg/membership-join/](http://www.sqi.org.sg/membership-join/)  
or contact us to get the membership  
application form.

Membership Categories:

- ~ Organisation membership
- ~ Individual membership

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