

Statistical Process Control (SPC) AIAG-VDA 1st Edition 2026 for Practitioners

Objective

The objective of this course is to equip participants with a practical understanding of the principles and application of Statistical Process Control (SPC), aligned to the AIAG-VDA 1st Edition 2026. Participants will learn how to monitor process performance, analyse variation, apply appropriate control charts, and evaluate machine and process capability. The course emphasises proactive process control, correct interpretation of statistical signals, and the use of SPC to support continuous improvement and defect prevention in manufacturing and service environments.

Content

- Introduction to Statistical Process Control and its role in quality management
- Process variation and key statistical fundamentals
- Control charts for variable and attribute data
- Selection and interpretation of control charts
- Process stability and identification of special causes of variation
- Machine capability, process capability, and process performance analysis
- SPC application for monitoring special characteristics
- Reaction strategies and Out-of-Control Action Plans (OCAP)

Duration

2 Days

Assessment

Participants will complete:

- A knowledge assessment
- Practical SPC exercises involving control chart interpretation and capability analysis

Successful candidates will receive a Certificate of Competence.

Pre-requisites

Participants should have a basic understanding of manufacturing processes and quality management concepts. Familiarity with basic statistical concepts such as mean, range, and standard deviation is beneficial, though not mandatory.

Target Audience

- Engineers & Quality professionals
- Process and manufacturing engineers & supervisors
- Continuous improvement practitioners

Training Methodology

The course uses a combination of:

- Instructor-led presentations
- Interactive group discussions and feedback
- Practical, group-based SPC application exercises and data interpretation activities