

UNIT 1 ADVANCED CONTROL CHARTING

Lesson 1 | Setting Up Variable Control Charts

- Calculating control limits and establishing a baseline chart.

Lesson 2 | Setting Up Attribute Control Charts

- Setting up p, np, c, and u charts.

Lesson 3 | More Patterns of Instability

- Explanations of Western Electric, AIAG, Nelson, and Boeing rules.

Lesson 4 | Setting Up Individuals and Moving Range Control Charts

- Calculating control limits and establishing a baseline chart for IX and MR Charts.

Lesson 5 | Special Control Charts and Applications

- Variations on the standard variable data control charts.

Unit Challenge

- An assessment of the learner's progress in this unit.

UNIT 2 ADVANCED PROCESS CAPABILITY

Lesson 1 | Conducting a Process Capability Study

- How-to conduct a process capability study.

Lesson 2 | Taking Action to Improve the Process

- What to do if the process is not capable.

Lesson 3 | More Capability Indices

- Pp and Ppk
- Differences between Ppk and Cpk.
- Cpm and Ppm

Lesson 4 | Process Capability Study Complications

- Using individuals instead of subgroups
- Compensating for tool wear
- Skewed distributions
- One-sided specs
- Short Run processes

Lesson 5 | Six Sigma Capability

- What is meant by Six Sigma Quality?
- How to use Z-values.

Unit Challenge

- An assessment of the learner's progress in this unit.