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## SPC Workout, Unit 2 Outline & Objectives

# Control Chart Basics

### Lesson 1 What are Control Charts?

- Explain how over-adjusting affects process variation.
- Define product characteristic.
- Define process parameter.
- Distinguish between product characteristics and process parameters.
- Describe the purpose of a control chart.

### Lesson 2 What a Control Chart Looks Like

- Explain the purposes of the four main sections of a control chart: Information, data, graph, comments.
- Define the roles of the centerline ( $\bar{x}$ -double bar), UCL, and LCL.

### Lesson 3 Interpreting Control Charts & Taking Action

- Apply the 68, 95, 99.7% rule with interpreting control charts.
- Identify the two most common rules for patterns indicating instability.
- Apply the analysis of the rules for patterns indicating instability.

### Lesson 4 Types of Control Charts

- Define variable data and its benefits.
- Define attribute data and its benefits.
- Distinguish between variable and attribute data.

### Lesson 5 Using Variable Control Charts

- Describe an X-Bar and R chart.
- Calculate the X-Bar and R of a variables control chart.
- Analyze X-Bar and R chart data for process control.
- Understand where the points on a variables control chart are plotted.

### Lesson 6 Using Attribute Control Charts

- Describe the four types of attribute control charts.
- Explain what each attributes chart measures and how to calculate the points to plot on the chart.
- Understand where the points are plotted on an attributes chart.