



**CONTINUING EDUCATION**

## **Short Run SPC**

### **CEQAL 529**

Organizations running small numbers of parts or manufacturing batches are challenged in applying classical SPC tools to their processes. Short run SPC offers these organizations highly effective, specific SPC tools that can be used to provide process understanding and the basis for process improvement in this environment. Strategies such as coding of data, standardized charting and capability assessment for short runs and batches are covered through theory, example and exercises.

- Who Should attend:** Individuals involved in applying SPC concepts to batch processing or short production runs.
- Prerequisite:** Basic knowledge of SPC concepts (SPC I) will provide an excellent background for this special topic seminar.
- CEU's Credits:** 1.6
- Duration:** 16 Hours – 2-day course
- Course Content:**
- SPC Strategy for Short Production Runs**
    - Process Control vs. Product Control
    - Characterizing Short Production Runs
    - Evaluating Short Production Runs
    - Components of Variation
  - Coding Variable Data**
    - Forming Families
    - Coding with Respect to Location
    - Coding with Respect to Variation
  - Standardized Charting**
    - Varying Sample Size Situations
    - Standardizing Location and Variation

### **Process Capability Assessment for Short Runs/Batch Processes**

- Probability Assessment
- Capability Indices (Cpk, Cp, CR, Ppk, Pp, PR)

### **Attribute Data**

- Testing for Differences
- Appropriate Coding of Data

### **Statistical Assessment of Limited Data**

- Student's t Statistic
- Calculating Limits with Few Samples
- Capability with Limited Data

*Each participant will receive a comprehensive manual and a Certificate of Completion at the close of the seminar*