

## Statistical Process Control (SPC) Course Outline

- Brief History of Quality Control
  - o Craftsmanship
  - o Guilds
- Normal Inspection Processes
  - o 100% inspection
  - Lot Sampling
- Rise of Continuous and Discreet Processes and Product Assurance
  - o Cost of Quality (Failure, Appraisal, Prevention)
- Data Types
  - Attribute
  - Variable
- Statistical Principles
  - Central Tendency
    - o Mean
    - o Median
    - o Mode
- Variation
  - o Range
  - Standard Deviation
    - Ν
    - n-1
- Creation of Histogram
- Control Charts
  - X Bar and R

- Median Range
- Stability Tests
  - Out of Control
  - o Basic Probability of Events
- Capability
  - o Cp, Cpk,
  - Pp, Ppk
- Special Control Methods
  - Poke Yoke'
    - Error Proofing
    - Mistake Proofing
  - Stop Light Controls
  - o Short Lot
  - o Cpk Control Charts

1333 Anderson • Clawson MI 48017 Phone: 248.280.4800 • Fax: 248.280.4804 www.quality-one.com