

## ***Basic Root Cause and Data Analysis Methodology Tools***

This course is design to help Maintenance Engineers to evaluate equipment repair history or sudden failure facts to identify the root cause. This course builds the foundation of effective problem solving by providing intermediate knowledge and skills around Root Cause Analysis and provides practical instruction on the fundamental statistical tools used in modern process control methods. Course problems will be used to practice the techniques developed.

### **WHO SHOULD ATTEND**

- All individuals who are expected to participate as a RCA team member
- Anyone who uses RCA's as a troubleshooting tool
- Not limited to shop floor personnel, technicians, operators or mechanics
- Applies to all disciplines and functions of any business group within an organization
- Anyone else who seeks a basic understanding of SPC.

**PREREQUISITE:** No prerequisites.

### **LEARNING OUTCOMES:**

1. Identify key points and helpful hints that will improve the efficiency of the RCA team
2. Apply fundamental SPC Concepts
3. Describe the purpose of SPC
4. How to clearly frame/define any problem
5. Identify the quality tools used to solve problems determined by SPC
6. How to be an effective RCA team member
7. Identify the importance of working in groups
8. Today's failed strategies in RCA programs
9. Calculate basic statistical parameters
10. What are the gaps in your current RCA programs?
11. Elements of an effective RCA program
12. Methods for collecting different types of data and interpret the data collection process
  - Including effective interviewing skills
13. Construct and interpret variables and attribute control charts
14. Identify the differences between an event that requires a formal RCA and one that does not ---- (what triggers and RCA?)
15. Basic RCA :Cause" charting:
  - Examples & Hands-on Exercises – Open Discussion
16. Where to find and how to capture the best solutions
17. How to develop appropriate recommendations to address root causes at various levels to avoid future incidents
18. Interpret process capability

**CONTINUING EDUCATION UNITS: 2.4**  
(Duration: 24 hours)

**Location:** San Jacinto College  
Central Campus  
8060 Spencer Hwy  
Pasadena, Texas 77505

**Date:** *Fall 2019 TBD*

**Cost:** \$1175

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