

## Introduction to Root Cause Analysis

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### Course Description

Jumping to conclusions without understanding the true origin and source of problems often leads to wasted time and resources. "Root Cause Analysis" is a method of problem solving that involves searching backwards from an undesirable event or outcome to identify its true causes.

This specialized, introductory course addresses some basic elements of the Root Cause Analysis approach to problem solving, with a specific focus on Cause & Effect Diagrams (Ishikawa) and the 5 Whys approach.

Through a combination of presentation, discussion and instructor-led exercises, participants will review the key principles of problem solving and Root Cause Analysis and will practice using Cause and Effect Diagrams as well as the 5 Whys Technique to identify the ultimate causes of problems.

### Who Should Take It

Individuals with responsibility for identifying and solving everyday problems, nonconformities, customer complaints and other issues. This includes, but is not limited to:

- Shift Supervisors
- Lead Hands
- ISO Coordinators, Quality Managers & Management Representatives
- Members of the Quality Team and/or Internal Audit Team

### Learning Objectives

- Understand the causes of ineffective problem solving and how it affects both individuals and the organization.
- Understand the key principles of effective problem solving.
- Use Cause and Effect Diagrams (Ishikawa Diagrams) to identify major factors contributing to a problem, as well as possible causes for those factors.
- Confirm relevant Cause/Effect relationships using the "5 Whys" technique.

### Course Outline

- Organizational Perspectives
  - Overview of Basics (Processes, Problems and Solutions)
  - Why Does Problem Solving Fail?
- Problems
  - Types of Problems
  - Approach to Problem Solving

- Understanding Root Cause Analysis
  - Definition
  - Goals and Objectives
  - Inventory of Available Tools
- Causes and Effects
  - The Cause and Effect Principle
- Cause and Effect Diagrams (a.k.a. "Ishikawa Diagrams" or "Fishbone Diagrams")
  - 4 Steps to Cause and Effect Diagrams
    - Step 1 - Identifying the Problem
    - Step 2 - Identifying the Major Factors
    - Step 3 - Identifying Possible Causes
    - Step 4 - Analyzing the Diagram
- The 5 Whys
  - The 5 Why Approach
  - Questioning the Question
  - Using the 5 Why Approach to Identify Root Causes

## **Prerequisites**

None. This is an introductory course.

## **Location**

On-Site

## **Duration**

1 Day (8 Hours)