

Course Outline

Understanding Root Cause Analysis Course BA10: 2 days Instructor Led

About this course

Most problems that people encounter are actually the symptoms of the problem, not the root cause. Root Cause Analysis (RCA) is a structured, team based, analytical approach that when used correctly can alleviate recurring problems within an organization. In this course, participants will learn to apply several practical, systematic methods for analyzing incidents and problems to uncover root causes. Understanding of these techniques will be reinforced by exercises as we explore effective ways of gathering data for root cause analysis and how to determine which problems should be analyzed. We will also discuss how to design, develop, and implement a root cause analysis program for your organization.

Audience profile

Executives, Project Managers, Business Analysts, Business and IT stakeholders working with analysts, Quality and process engineers, technicians, corrective action coordinators or managers; supervisors, team leaders, and process operators; anyone who wants to improve their ability to solve recurring problems.

At course completion

After completing this course, students will be able to:

- Learn how to initiate a root cause analysis and gather data for investigating process and non-process incidents
- Demonstrate how to collect data through interviews and analysis
- Apply powerful techniques to identify and know the difference between symptoms and root causes
- Learn to know when to use the appropriate technique in root cause identification
- Learn how to avoid future incidents by developing appropriate recommendations to address causal factors and root causes
- Develop a process to identify systemic problem areas

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Section 1: Introduction and Objectives

- What is a "Problem?"
- Why Problems Persist
- What is A Root Cause?
- Why Root Causes are important

Section 2: How to Organize for an RCA

- RCA Roles and Responsibilities
- Assemble your RCA Team
- Modes of Communication
- How to Resolve Conflict
- Case Study Exercise

Section 3: Select the Problem to Analyze

- Define the selection criteria
- Plan and estimate tasks for the team
- Finalize the plan and gain agreement among your stakeholders
- Case Study Exercise

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Section 4: Define the Problem

- What to look for - Problem-as-Given (PAG) vs. Problem-as-Understood (PAU)
- Developing your problem statement
- Refining the problem specification
- Case Study Exercise

Section 5: Identify the Source of the Problem

- Discuss when to use the appropriate analysis technique to determine the problem source
 - o Process Diagram
 - o Forms & Checklists
 - o Statistical Sampling
 - o Fishbone Diagram
 - o Surveys
 - o Charts - Line, Scatter, Bar, & Pie
- Case Study Exercise

Section 6: Solution Options Analysis and Selecting the “Best Fit”

- How to approach different solution options
 - o Brainstorming
 - o Weighted Evaluation
- Selecting the appropriate option
- Hold an Retrospective on your approach
- Planning the proposal
- Case Study Exercise

Section 7: Putting RCA into practice

- Create a Root Cause Analysis program within your organization
- How to develop appropriate recommendations to address root causes at various levels to avoid future incidents