BA17 – Advanced Root Cause Analysis (ARCA)

Course Duration: 2 days / 14 PDUs

Course Level: Intermediate/Advance

Prerequisites:
BA14 - Problem Determination using Root Cause Analysis
This course is aimed for experienced professionals who want more hands-on practice with root cause analysis.

Promotional Material:
Business success is dependent on effective resolution of the problems that present themselves every day. Often the same or similar problems continue causing repeated losses in time or money and your staff become experts at fixing rather than preventing the problems. Learn to find and fix root causes and develop corrective actions that will effectively eliminate or control these problems.

Course Overview:
Excellent problem determination skills cannot be acquired simply by reading a book. They mostly come from experience as well as discipline. After this course, you should have a general understanding of a structured problem determination approach, which you can then apply in your daily work to gain more experience.

Included:
- Full Student Guide
- Problem Determination and Root Cause Analysis templates

Intended Audience:
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.

Learning Objectives:
At the completion of this course, you should be able to:
- Identify the different types of tools and techniques available
- Apply change management successfully
- Review what to look for when applying business case thinking to Root Cause Analysis
- Develop a process to systematically approach problems

Course Outline:

Section 1: Introduction and Objectives
- Investigate the Root Cause Analysis (RCA) methods
- Discuss the various RCA philosophies and methodologies
- Discuss the importance of a true RCA process
- Discuss why multiple solutions are important
  Exercise: Identify a case study

Section 2: Be able to effectively use 8 RCA tools

- Event and Causal Analysis
  Exercise: Apply Event ad Causal Analysis
- Change Analysis
  Exercise: Apply Change Analysis
- Fault-Tree
  Exercise: Apply Fault-Tree
- Design/Application Review
  Exercise: Apply Design/Application Review
- Sequence-of-Events
  Exercise: Apply Sequence-of-Events
- FMEA
  Exercise: Apply FMEA
- 5-Whys
  Exercise: Apply 5-Why's
- Cause and Effect
  Exercise: Apply Cause and Effect

Section 3: Develop your RCA program

- Develop a systematic way to define and analyze a problem while determining and implementing solutions
- Outline triggers for the RCA effort based on business case thinking
  Five key steps during Business case thinking
  - Step 1: Problem/ Opportunity Identification
  - Step 2: Analysis of Success Drivers/Impediments
  - Step 3: Presenting Strategic & Tactical Alternatives
  - Step 4: Comprehensive Evaluation & Recommendations
  - Step 5: Implementation & Action Planning
  Exercise: Review business case examples and what to look for
- Identify roles, goals and responsibilities within your organization using a RACI Matrix
  Exercise: Create RACI based on the case study
- Create a "Straw Man Template" RCA process for your Organization using BPMN
  - What is Business Process Modeling Notation (BPMN)?
  - Benefits of BPMN
  - Basic Components of BPMN
  - Challenges with Process Modeling
  Exercise: Use BPMN to capture the RCA process for your organization

Section 4: Prepare to implement the RCA process

- Recognize the importance of the Change Management component in your RCA implementation
- Review ADKAR® Model –
  - **Awareness** of the need for change
  - **Desire** to participate and support the change
  - **Knowledge** on how to change
  - **Ability** to implement required skills and behaviors
  - **Reinforcement** to sustain the change
  Exercise: Discuss how you would apply ADKAR to your case study
- Learn the use of the processes to eliminate common implementation issues
- Choose proper corrective actions and follow-up processes for various situations
- Practice the use of proper documentation, including incident reporting