

A man wearing a white hard hat and safety glasses is looking down at something in his hands. He is wearing a white safety vest with orange reflective stripes over a blue and white patterned shirt. The background is a blurred industrial setting with machinery and pipes.

aractech

Global Learning for Operational Leaders

MAINTENANCE AND ENGINEERING

Root Cause Failure Analysis (RCFA) Masterclass

Contact

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Waarderweg 50, 2031PB Haarlem - Netherlands.

Course content

Why Attend

This course provides participants with an in-depth and practical understanding of how to investigate and prevent equipment failure.

Failure analysis has historically been viewed as the domain of technical specialists, using complicated tools and programs to inform maintenance and operating teams what they have done incorrectly.

Course Methodology

- This is an interactive course. There are open question and answer sessions, regular group exercises, videos, case studies and presentations on best practice and the fundamentals of reliability improvement.
- Participants have the option and opportunity to share and discuss their own work experience and to identify issues and enhancements that can be immediately tackled/applied upon returning to their organizations.

Course Objectives

- Understand equipment function and therefore skillfully identify equipment failure
- Effectively investigate equipment failure incidents to understand root causes
- Implement effective controls to avoid similar incidents occurring
- Engage their organization to achieve more effective failure investigation
- Analyze critical equipment systems to avoid future failure

Target Audience

- This course is ideal for maintenance managers, operations managers and reliability professionals. Maintenance engineers, experienced supervisors, planners and functional specialists will also benefit greatly from this course.
- Target Competencies
- Failure investigation
- Failure control implementation

Course outline

Detailed course outline

Module-by-module outline for Root Cause Failure Analysis (RCFA) Masterclass.

Module 1 - Purpose of Failure Investigation, Prevention and Control

- Understanding the needs of the business
- How equipment failures effect profit and customer satisfaction
- Risk assessment and prioritization
- Introduction to the Integrated Model of Excellence for Maintenance

Module 2 - Understanding Function and Failure Modes

- Understanding equipment function
- The history of failure mode modelling and where people go wrong
- Introduction to failure types

Module 3 - Principles of Failure Investigation

- What is Root Cause Failure Analysis (RCFA)
- Gathering data, how to understand what has really happened
- Investigating further with Barrier Analysis and Change Identification
- Getting to root cause with 5 why's
- Organising your investigation with Cause Types and Fault Trees
- The importance of facts and data based analysis

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Module 4 - Principles of Failure Prediction

- What Failure Modes Effects Analysis (FMEA) is
- Understanding when it is appropriate to undertake FMEA
- Pitfalls for FMEA and how to avoid these
- FMEA as part of an integrated Reliability Centred Maintenance (RCM) process

Module 5 - Implementing Failure Prevention Controls

- Types of controls
- How to choose the appropriate control
- Making controls stick

Seminar dates

Available seminar dates

Live dates and pricing for Root Cause Failure Analysis (RCFA) Masterclass generated from the course details page.

Date	Location	Format	Fee
22 - 26 June 2026	Amsterdam	Classroom	€2,975
13 - 17 July 2026	London	Classroom	€2,940
17 - 21 August 2026	Istanbul	Classroom	€1,995
21 - 25 September 2026	Vienna	Classroom	€2,975
19 - 23 October 2026	Barcelona	Classroom	€2,695
2 - 6 November 2026	Paris	Classroom	€3,150
21 - 25 December 2026	Frankfurt	Classroom	€2,275

Live online option

Online delivery is available at €1,250.