METHODS RELIABILITY METHODS

In two days, this interactive, practical course addresses the integration of a range of reliability initiatives into an asset management strategy. You'll discover the tools necessary to develop, implement, and sustain best in class maintenance and reliability programs. You'll learn, in depth, the elements your organization needs in order to reduce reactive maintenance, downtime, and maintenance costs with proven reliability methods.

This course provides an alternative to the basic 1-day REL101 introduction course and instead provides a deep dive into all the main tools which the Reliability Engineer should be equipped with. (REL201)

Format

Duration: 15 hours **Schedule:** 2 Day(s) **Delivery:** Classroom

Who should attend

Graduate engineers, project engineers, asset managers, maintenance engineers, design engineers, reliability engineers/technicians, operators, safety engineers, risk engineers, defect elimination managers

Objectives

- Describe the key methods and tools to employ to achieve reliability improvement across the asset lifecycle.
- Explain the objectives are of reliability management and how the reliability discipline interacts with the rest of the organization.

Program Outline

Day 1

- Reliability Concepts
- Breaking The Reactive Cycle
- Benefits of Reliability Based Maintenance
- Definition of Reliability Terms
- Introduction to key Reliability Engineering Tools:
  - Failure Mode Effects & Criticality Analysis (FMECA)
  - Weibull Distribution Analysis
  - Reliability Centered Maintenance (RCM)

Day 2

Introduction to key Reliability Engineering Tools:

- Failure Mode Effects & Criticality Analysis (FMECA)
- Weibull Distribution Analysis
- Reliability Centered Maintenance (RCM)
- Life Cycle Costing (LCC)

- Availability & Capacity Modelling using Reliability Block Diagrams (RBD)
- Asset Criticality
- Root Cause Analysis (RCA)
- Performance Measures (ROI, OEE)
- Fault Tree Analysis (FTA)
- Event Tree Analysis (ETA)
- Reliability Prediction

Next Steps:

- FMECA101 - Failure Mode, Effects and Criticality Analysis
- RCM201 - Maintenance Strategy Development
- RBD101 - Improving Plant Availability using Reliability Block Diagrams

Languages

- English
- Spanish