COURSE BROCHURE

Reliability-Centered Maintenance

An advanced course in the RCM method for defining asset functions, failure modes and consequences, and selecting the tasks worth doing in place of inherited maintenance schedules.

Code	HT-OGE-103
Category	Oil & Gas, Engineering & Maintenance
Duration	1 week
Level	Advanced
City	Dubai

Introduction

Many preventive programs were copied from manufacturer manuals or inherited without review. They spend resources on tasks that prevent no real failure while missing hidden failures with severe consequences.

Objectives

- Define asset functions, performance standards and functional failures in their operating context
- Analyze failure modes and effects with a structured FMEA
- Classify hidden, safety, environmental and operational failure consequences
- Select proactive and failure-finding tasks using clear decision logic
- Plan an RCM program rollout and measure its effect on reliability and cost

Who should attend

- Reliability and maintenance engineers
- Leaders of asset improvement and maintenance program teams
- Operations engineers taking part in asset reviews
- Maintenance managers responsible for critical asset strategies

Skills you will develop

- Function and failure analysis
- FMEA analysis
- Failure consequence evaluation
- Justified maintenance task selection

Learning Outcomes

- Complete an RCM information worksheet for a sample subsystem
- Use the decision diagram to select a justified task for each failure mode
- Calculate a condition-based inspection interval from an estimated P-F interval
- Prepare a proposal to revise an existing maintenance program showing tasks added and removed

Course Outline

Day 1: Reliability Foundations and the RCM Method

- How maintenance thinking evolved and the six failure patterns

- The seven RCM questions and the requirements of SAE JA1011
- Choosing assets for analysis by criticality

Day 2: Functions and Functional Failures

- Defining the operating context and system boundaries
- Writing primary and secondary functions with measurable performance standards
- Defining total and partial functional failures

Day 3: Failure Modes and Effects

- Identifying reasonably likely failure modes at the right level of detail
- Describing failure effects and what the operator sees
- Building the FMEA worksheet and ranking priorities

Day 4: Consequences and Task Selection

- Hidden and evident failures and their safety, environmental and operational consequences
- Condition-based tasks, the P-F curve, and scheduled restoration and discard
- Failure-finding tasks, run-to-failure and redesign

Day 5: Implementation and Sustainment

- Forming review teams, running sessions and recording decisions
- Turning analysis results into CMMS maintenance plans and reviewing them over time
- Applied project: an RCM analysis of a sample pumping system compared with its current program

Training methodology

Team review sessions on a sample pumping and cooling system with its drawings and data
Applying the task selection decision diagram to realistic failure modes
Calculating inspection intervals and failure-finding frequencies from sample data
A critical review of an existing preventive program against the analysis results

Certification

Participants receive a Harbor Training Center certificate of attendance on completing the course.

Upcoming dates

City	Dates	Language	Fee
Dubai	12 – 16 April 2027	EN	EUR 4,800
Dubai	11 – 15 October 2027	AR	EUR 4,800

Fees are per participant.

Contact us

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To register and for details, scan the code or visit:

https://harbor4training.com/en/courses/reliability-centered-maintenance