ASSET PERFORMANCE MANAGEMENT

ARP-E ASSET RELIABILITY PRACTITIONER FOR RELIABILITY ENGINEERS

The ARP-E Asset Reliability Practitioner for Reliability Engineers course prepares participants for the ED161 certification by providing essential knowledge in reliability data analysis and asset management strategies. It covers key tools such as asset criticality ranking, Weibull analysis, reliability block diagrams, and techniques like fault tree analysis (FTA), reliability-centered maintenance (RCM), and failure modes and effects analysis (FMEA).

Format

Duration: 32 hours **Schedule:** 4 Day(s) **Delivery:** Classroom

Who should attend

- Technical reliability engineers
- person involved in implementation of technical elements of reliability improvement and perform the analysis to make key decisions
- personnel who want to become certified to international standards (ED161)

Objectives

- Prepare the participant for the ED161 certification test.
- Get a good understanding reliability data analysis like Statistics, Asset Criticality Ranking, Pareto analysis, Weibull analysis, Crow-AMSAA, Reliability block Diagrams (RBD) and the Monte Carlo method – and a few other topics.
- Learn a structured process to ensure your asset strategy (maintenance plan) manages your risks and makes the best use of available resources through asset strategy development techniques like FTA, RCM, PMO, FMECA, and etc.
- Get a clear understanding of condition monitoring, lubrication management and root cause failure analysis, and etc.

Required Prerequisites

24 months of experience is required for certification

The exam and the associated certification is provided by Mobius. Baker Hughes can provide a proctored environment for the paper or online exam.

Program Outline

Day 1

- Introduction, strategy, and people management
- Risks and consequences
- Likelihood and detectability
- Reliability data analysis
- Asset Criticality Ranking and Pareto analysis

Day 2

- Defect elimination
- Minimize lifecycle costs
- Operations and reliability
- Asset strategy development
- Master Asset list (MAL) and Bill of Materials (BOM)
- Fault Tree Analysis (FTA)

Day 3

- Failure Modes, Effects (and criticality) Analysis (FMEA)
- Reliability Centered Maintenance (RCM)
- Preventive Maintenance Optimization (PMO)
- Root Cause (Failure) Analysis
- Work, spare and material management
- Precision lubrication and contamination control

Day 4

- Precision alignment and rotor balancing
- 5S and the visual workplace
- Vibration analysis
- Ultrasound analysis
- Oil and wear particles analysis
- Infrared thermography
- Inspections, performance and NDT
- Electrical Equipment

Additional Requirements: Currently offered in the Middle East Region. Contact your Cordant™ region training manager

CERTIFICATION
Asset Reliability Practitioner (ARP)
Global Partner: Mobius Institute