



Introduction to Reliability for Engineers

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This **Petrogenium**. Introduction to Reliability for Engineers course gives a brief introduction to reliability, concepts and practical application. Ideal for practicing engineers and supervisors to get a good overview of what reliability is about and how it can benefit the organization.

The course is conducted in 3 days on client site.

Participants

This **Petrogenium**. course can be tailored for awareness/inexperienced staff, for intermediate and for experienced personnel. Furthermore the course can be customized for a specific refinery, plant or unit. The option for post-course consultancy/help-desk support is also available.

Participants may include: engineers and supervisors from: Maintenance, Operations, Projects, Process Engineering, Contracts/Procurement, Warehousing, Safety, Human Resources, Environment and Health, Finance, Economics and Scheduling, Turnaround, etc.

Learning Objectives

This course provides provides a more in-depth understanding of reliability and how it impacts the way assets in the facilities could be effectively managed. It offers an insight in reliability concepts and how it is applied in the real world. Case studies and practical exercises will demonstrate how it changes the paradigm beliefs of the participants of this course.

Programme

Day 1

- Objectives & Premises
- Building the Case for PM Tasks
 - Stages to Maintenance Excellence
 - Maintenance in the overall business process
 - Syndicate Session #1
- Maintenance & Reliability Principles
 - Meaning of "Maintenance"
 - Need for Maintenance
 - Evolution of Maintenance
 - Equipment Life & Failure Patterns
 - Failure Pattern F: Infant Mortality

Day 2

- Features of Poor Maintenance
- Modern Reliability Views
- Maintenance Options
- Syndicate Session #2
- Maintenance Policies
 - Stand-alone
 - Dedicated duty
 - Dedicated standby
 - Run-to-Failure
 - Hidden Failure
 - Syndicate Session #3

Day 3

- Understanding the P-F Curve
 - Civil
 - Electrical
 - Mechanical
 - Tire Maintenance (example)
 - Cost Effectiveness of Maintenance
- RCM Application
 - Benefits
 - IPF, RBI and RCM Development
 - Meaning of "Life"