

**Training Title**

**METALLURGY CORROSION & PREVENTION OF FAILURES**

**Training Duration**

5 days

**Training Venue and Dates**

Metallurgy Corrosion & Prevention of Failures	5	07-11 March	\$3,300	Abu Dhabi
Metallurgy Corrosion & Prevention of Failures	5	November 28 - December 2	\$3,300	Dubai

In any of 5 star hotel. Exact venue will be informed later.

**Training Fees**

- 3300 US\$ per participant for Public Training includes Materials/Handouts, tea/coffee breaks, refreshments & Buffet Lunch

**Training Certificate**

Define Management Consultants Certificate of course completion will be issued to all attendees.

**Who Should Attend**

For all maintenance staff who are interested in knowing why some components fail more often than expected- Corrosion awareness- For plant engineers who interested in learning fitness for service of plant and equipment- for Managers interested in health safety and environment in case of unintended plant failure-for Managers interested in MRO and plant maintenance cost and know all about inspection and monitoring-This is a value added package.

**COURSE OBJECTIVES :-**

To understand the fundamentals of material failure at normal and plant operating condition and why different material behave differently - strategic maintenance methods  
 To understand how plant aging can cause catastrophic failures and the methodology of inspection  
 Importance of monitoring and modern methods  
 Case studies from plant failures and failure analysis to reinforce understanding of theory  
 To understand corrosion in other structural materials as concrete fiberglass and nonmetals

**COURSE OUTLINE :-**



## **Metallurgy**

**History-The stone age and the discovery of metals-metals and non metals-ferrous and non ferrous-the art and science of metallurgy-steel making ancient and modern-discovery of other metals and periodic classification0-physical and chemical properties-atomic model-crystal structure and grain boundaries-mechanical properties-demerits of carbon steel-discovery of stainless steel**

**Definition of corrosion-the importance of corrosion studies-why metals are attacked-the energy diagram-pH and the pourbaix diagram-the galvanic series-faradays laws- the corrosion theory- factors that influence corrosion-case studies**

**Controlling corrosion – anode cathodic and the four components of corrosion cell – polarization cathodic protection – coating – inhibitors – better material and design – how each of them help to control corrosion – inspection.**

**Monitoring corrosion – what is monitoring – why it is necessary – what are the equipments and methods – NDT – record keeping.**

**Safety health and environment.**

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