

Introduction to Corrosion

Duration 1 day

Description This course provides an understanding of how corrosion happens, how it manifests itself and how the relevant methods of corrosion prevention and control operate.

Who Should Attend? The course is suitable for many working in a corrosion-related field, but it is mainly designed for those who want a basic understanding of corrosion chemistry, forms of corrosion and methods of corrosion control.

Course Highlights **Corrosion and the Corrosion Process**

This session introduces the basic principles of corrosion: What is happening on the metal surface when corrosion takes place. The Galvanic Series and how it is used to determine which metal corrodes when different metals are joined. How the area of each metal influences corrosion rate. The factors that influence whether steel and other metals corrode uniformly or in a localized manner.

Different Forms of Corrosion

The various ways which metals can fail from corrosion. Forms include: general, galvanic, crevice and pitting corrosion; intergranular, selective, and erosion corrosion, stress corrosion cracking, hydrogen damage, corrosion fatigue.

Corrosion Mitigation

This session will introduce the various methods of preventing corrosion, how they protect and where they can be used. These include design improvement, material selection, inhibitors, organic coatings, metallic coatings, inorganic coatings, cathodic protection and anodic protection.

Prerequisites The only prerequisite is an understanding of secondary school year 10 level of chemistry.