Introduction
This training program will focus on Marine, Offshore and Oil and Gas. In such industries, corrosion forms a continuous threat to structures, equipment and vessels, on onshore and particularly offshore installations.

Protecting your assets against integrity losses requires thorough understanding of materials used and the degradation mechanism (corrosion phenomena).

This course provides you the intellectual tools on how to prevent corrosion and choosing the most effective measures when it is already affecting your valuable assets.

Modular course
The module fits in a full course of three modules for marine, offshore activities and oil and gas production.

Module 1: Corrosion basics and mechanisms.
Metallurgy, Materials and Plastics for marine, offshore, static equipment and oil and gas.

Module 2: Marine and offshore (seawater, brackish water natural water). materials selection, maintenance, inspection and corrosion.


Target audience
Process engineers, Maintenance, Design, Piping Engineers, Superintendents, Asset Integrity Managers, Engineers. The course is dutch or english spoken depending on the audience. The written course material will be in English.

Programm

**Metallurgy**
Technical Metals and Alloys
Alloy coding UNS numbering
EN Alloy numbering
ASTM Standards for steels and stainless steels
Microstructure and physical metallurgy
Mechanical properties
Cast alloys
Forged Alloys and flanges ASME and DIN
Rolled Alloys and pipe alloys

Fatigue corrosion in duplex SS turbine seawater cooler.

**Corrosion**
Electrochemistry basics
Corrosion Mechanism
MIC (Microbiologic Influenced Corrosion)
Corrosion under Insulation and external corrosion

**Cathodic Protection Design**
Sacrificial anodes design
Impressed current design
DNV RP B401 for CP design and calculations

In company trainings are provided in the Dutch or English language on site, worldwide and when needed, based on your specific working practice and cases.