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# Course: Corrosion & Materials and Corrosion Control

Code	City	Hotel	Start	End	Price	Language - Hours
814	Beijing (China)	Hotel Meeting Room	2025-08-18	2025-08-22	5950 €	En - 25

## PROGRAMME SUMMARY

Corrosion Prevention & Control (CPC) planning is the most efficient method for effectively addressing and reducing the impact of corrosion at every stage of a product or facility's lifecycle. This eCourse walks through the NACE SP21412-2016/SSPC-CPC 1 standard, diving into the key aspects of CPC planning for products and facilities. It covers: attributes that impact CPC planning; considerations for material selection and design to minimize corrosion; and items that should be addressed in CPC planning which affect CPC in design, fabrication and construction, operation and use, and maintenance and sustainability.

## OBJECTIVE

- Understand the mechanisms of corrosion
- Understand the costs of corrosion across industry
- Recognize the importance of corrosion prevention and control planning
- Recognize the purpose of the CPC planning standard
- Identify the different components of the standard
- Identify the items or topics that should be addressed during CPC planning
- Possess a fundamental understanding of how this standard can be utilized as an effective tool during CPC planning
- Development skills in the field of to produce competent, professionally qualified graduates who are appropriately trained and will secure immediate, rewarding and useful employment in UK, European or overseas industries as corrosion scientists or engineers.
- To provide conversion training, which is intellectually challenging, as well as being



industrially relevant.

- To satisfy the needs of practicing engineers, scientists and technologists wishing to develop professional competence in the areas of corrosion and corrosion control methods.

## **WHO SHOULD ATTEND**

- Corrosion & Integrity Engineers
- Production & Operation Engineers
- Inspection Engineers
- Repair & Maintenance Engineers
- Coating & CP Engineers
- Asset Project Engineers & Asset Managers
- Chemical Treatment Suppliers
- Corrosion Monitoring Systems Suppliers & Lab Technicians
- Applicable to all personnel working in the oil, gas and petrochemical industry, and who are involved in the design, procurement, engineering construction, operation, maintenance and inspection of storage tanks and related facilities.
- Managers, engineers and technicians, and all involved and work-related to inspection & laborites in oil refinery operation of various public institutions and private companies and various ministries .

## **THE SCIENTIFIC CONTENT OF THE PROGRAM**

### **Corrosion Management in the Oil and Gas Industry:-**

- Introduction
- What it is Corrosion? - Definition of Corrosion
- Corrosion in Action: Examples of Corrosion
- Corrosion and Society: Its economic, social, political and environmental impacts
- Liabilities due to corrosion



- Lessons of History
- Basic Concepts in Corrosion.
- Corrosion and Corrosion Engineering (CE) in the Oil and Gas Industry
- The Two Current Corrosion Management (CM) Models
- The Corrosion Management Concept Definition

### **The Corrosion Management Implementation Process:-**

- The Integrity Review Process
- The Corrosion Engineering and Corrosion Management Interactions Post-Commissioning
- The Corrosion Management Process Implementation
- A Brief Introduction to Risk-Based Inspection (RBI)
- Inspection Basics
- Risk Basics
- Risk-Based Inspection Basics
- Corrosion Loops and Process Flow Diagrams

### **Identification and Maintenance of Management Requirements:-**

- An Introduction to Management Requirements
- Registers, Strategies and Procedures
- Databases, Documentation and Data Management
- The Significance of Communication
- The Asset Corrosion Management Strategy Document
- Corrosion Control Matrices and Corrosion Key Performance Indicators
- Team Structure, Roles and Responsibilities
- The Significance of Competency

### **Corrosion Management Shortcomings and Other CM Requirements:-**

- Corrosion Management Shortcomings
- Corrosion Failure Pre-emption



- Corrosion Cost Optimisation
- Other Important CM Requirements
- The Corrosion Management Audit
- The Management of Change Process
- Anomalies and their Management
- Leak Register, Failure Investigations and Learning

### **Corrosion Management Benefits and Implementation Recommendations :-**

- Potential Benefits of Corrosion Management Applications
- Recommendations for Optimized Corrosion Management Implementation
- Main Conclusions
- Main Recommendations
- Post-Course Assessment.
- Case studies and examples.



**The Scandinavian Academy for Training and Development employs modern methods in training and skills development, enhancing the efficiency of human resource development. We follow these practices:**

• **Theoretical Lectures:**

- We deliver knowledge through advanced presentations such as PowerPoint and visual materials, including videos and short films.

• **Scientific Assessment:**

- We evaluate trainees skills before and after the course to ensure their progress.

• **Brainstorming and Interaction:**

- We encourage active participation through brainstorming sessions and applying concepts through role play.

• **Practical Cases:**

- We provide practical cases that align with the scientific content and the participants specific needs.

• **Examinations:**

- Tests are conducted at the end of the program to assess knowledge retention.

• **Educational Materials:**

- We provide both printed and digital scientific and practical materials to participants.

• **Attendance and Final Result Reports:**

- We prepare detailed attendance reports for participants and offer a comprehensive program evaluation.

• **Professionals and Experts:**

- The programs scientific content is prepared by the best professors and trainers in various fields.

• **Professional Completion Certificate:**

- Participants receive a professional completion certificate issued by the Scandinavian Academy for Training and Development in the Kingdom of Sweden, with the option for international authentication.

• **Program Timings:**

- Training programs are held from 10:00 AM to 2:00 PM and include coffee break sessions during lectures.