

Course Overview:

This intermediate-level course is tailored for professionals tasked with maintaining the integrity of metal infrastructure. It delivers comprehensive insights into cathodic protection systems, a critical technique for preventing corrosion in assets like pipelines, tanks, and marine structures. Participants will gain practical knowledge and technical skills needed to design, monitor, and troubleshoot these systems effectively, ensuring operational reliability and asset longevity.

Course Objective:

- Understand the fundamental principles of cathodic protection and corrosion processes
- Design effective cathodic protection systems based on site-specific criteria
- Execute correct installation and commissioning procedures
- Monitor system performance and conduct preventive maintenance
- Diagnose and resolve common system failures

Course Outline:**Module 1: Basics of Cathodic Protection**

- Principles of cathodic protection
- Electrochemical process of corrosion
- Types of cathodic protection systems

Module 2: Design of Cathodic Protection Systems

- Design criteria and considerations
- Selection of anodes and materials
- System layout and configuration

Module 3: Installation and Commissioning

- Installation procedures
- Commissioning of systems
- Field testing and initial adjustment

Module 4: Monitoring and Maintenance

- Routine monitoring techniques
- Maintenance practices
- Record keeping and documentation

Module 5: Troubleshooting Cathodic Protection Systems

- Common problems and solutions
- Diagnostic tools and techniques
- Rectifying system failures

Module 6: Safety and Environmental Considerations

- Safety in system installation and maintenance
- Environmental impacts
- Compliance with regulations

Module 7: Advancements in Cathodic Protection

- Technological innovations
- Emerging trends and best practices
- Future developments in corrosion control

Module 8: Case Studies and Real-World Applications**Training Language:**

English

Training Methodology:

The course combines various teaching methods, including instructor-led presentations, group discussions, case study analyses, and assessments through quizzes and a final exam to engage participants and ensure they understand and retain the material.

Venue | Date | Fees

Riyadh | 02-11-2025 | 17,250 SAR

- Analysis of successful projects
- Learning from challenges and failures
- Applying theory to practical scenarios

Who Should Attend:

- Corrosion engineers
- Maintenance personnel in oil and gas, pipelines, and marine industries
- Technical staff involved in corrosion control
- Professionals responsible for asset integrity