

*WebCorr Corrosion Consulting Services Presents*

## Corrosion Inspection, Corrosion Testing and Monitoring

Date: As published on website Venue: As published on website

### Course Overview

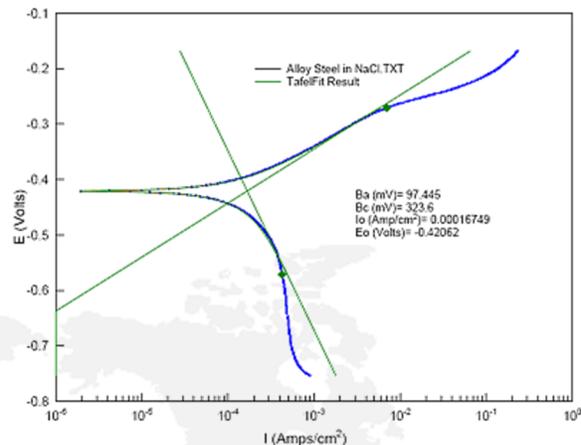
Corrosion is a disease to materials just like a disease to human beings. Some types or forms of corrosion can be prevented through good practices in materials selection and design, while others can be cured or controlled if diagnosed early. Corrosion diagnosis involves a number of destructive and non-destructive inspection and examination techniques such as visual, NDT/NDE, inspection, chemical, electrochemical, mechanical, metallurgical, and microstructural tests and analyses. Unexpected corrosion failures can be avoided through corrosion inspection, corrosion monitoring, and corrosion testing. This corrosion short course aims to present to the technologists and engineers a dozen of corrosion testing and monitoring techniques that can be used to solve many of their most tedious and persistent corrosion problems. This corrosion course will provide the participants with a thorough understanding of the basic principles and the practical applications of some simple yet powerful techniques in corrosion testing and monitoring. For each technique, a step by step guide for performing the corrosion measurements will be described. This 5-day course (with practical session) provides an excellent avenue for corrosion practitioners, researchers, designers, technical managers, inspection and maintenance engineers, quality control personnel and those involved in failure analysis to update their appreciation of modern techniques for corrosion testing and monitoring.

### Who Should Attend

Corrosion practitioners, researchers, designers, technical managers, inspection and maintenance engineers, quality control personnel and those involved in failure analysis.

### Course Outline

1. Basics of Corrosion Measurements
  - 1.1 Introduction
  - 1.2 Corrosion and society
  - 1.3 The need for corrosion testing and monitoring
  - 1.4 Terminology and conventions
  - 1.5 Overview of different forms of corrosion



2. Corrosion Testing and Monitoring Techniques
  - 2.1 Weight loss coupon
  - 2.2 Electrical resistance (ER)
  - 2.3 Principles of electrochemical methods and Tafel plot
  - 2.4 Linear polarisation resistance (LPR)
  - 2.5 Potentiodynamic anodic polarisation
  - 2.6 Cyclic polarisation for pitting
  - 2.7 Electrochemical potentiokinetic reactivation (EPR) sensitisation test
  - 2.8 Other techniques: EIS, EN, ZRA, and hydrogen monitoring
3. Applications of Electrochemical Techniques
4. On-Line Corrosion Monitoring
  - 4.1 why use on-line corrosion monitoring
  - 4.2 direct methods of on-line corrosion monitoring
  - 4.3 on-line monitoring system components and functions
  - 4.4 principle on-line corrosion monitoring methods
  - 4.5 where & when to use it
  - 4.6 how much does it cost
5. Corrosion Inspection Techniques
  - 5.1 Visual Inspection
  - 5.2 Liquid Penetrant Inspection
  - 5.3 Magnetic Particle Inspection
  - 5.4 Ultrasonic Testing
  - 5.5 Eddy Current Testing
  - 5.6 X-ray Radiography

### Course Registration

Please register online at [www.corrosionclinic.com](http://www.corrosionclinic.com)  
Or use the form below (photocopies of this form may be used for multiple bookings).

Dr/Mr/Ms \_\_\_\_\_  
Organization \_\_\_\_\_

Contact Person \_\_\_\_\_

Contact Dept \_\_\_\_\_

Telephone \_\_\_\_\_ Fax \_\_\_\_\_

Email \_\_\_\_\_

Payment should be made by TT or online banking. Currencies in Australian Dollar, Canadian Dollar, US Dollar, Euro and Sterling Pound can be transferred directly without conversion. Our bank details can be found at the link below:

<https://www.corrosionclinic.com/payment.html>

### Course Fee and Discount

**Standard:** \$3,500      **Discount:** \$3,150

The fee includes a hardcopy of course note, certificate, light lunch, coffee breaks each day during the course.

Discount applies to a group of 3 or more persons from the same organization registering at the same time, or early-birds making payment at least 8 weeks before the course commencing date.

#### Cancellation and Refunds

Cancellation or replacement should be conveyed to WebCorr in writing (email or fax). An administration charge of 50% of the course fee will be levied if the cancellation notice is received from 14 to 7 days before the course commencing date. No refund will be made for cancellation notice received 6 days and less. No refunds will be given for no-shows. Should WebCorr find it necessary to cancel a course, paid registrants will receive full refund. Refund of fees is the full extent of WebCorr's liability in these circumstances.



WebCorr has NACE certified Corrosion Specialist (#5047) providing customized in-house training, online and distance learning corrosion courses, corrosion seminars and workshops on corrosion, materials, metallurgy, paints and metallic coatings. Our corrosion courses are developed and taught by NACE certified Corrosion Specialist with over 30 years of practical experience in the field. Our training success is measured by your learning outcome.