



WebCorr Corrosion Consulting Services Presents

Corrosion Control and Prevention for Conservators and Curators

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

Course Overview

Preserving the national heritage and cultural assets is a challenge to conservators and curators worldwide. This corrosion course systematically and thoroughly covers the basic theory of corrosion and the practice of corrosion control and prevention for conservators and curators.

This corrosion short course can be taken as in-house training course, online course and distance learning course worldwide. It can also be customized to meet the specific needs of your organization.

Who Should Attend

Curators, conservators and those working in the preservation of heritage buildings and monuments.

Course Outline

- 1 Corrosion & Cultural Heritage
 - 1.1 Corrosion: What it is
 - 1.2 Corrosion: its impacts on cultural heritage
 - 1.3 Basic concepts related to corrosion
 - 1.4 Why does a metal corrode
 - 1.5 How does a metal corrode
- 2 Forms of Corrosion: recognition, mechanisms and prevention
 - 2.1 Uniform corrosion
 - 2.2 Galvanic corrosion
 - 2.3 Crevice corrosion
 - 2.4 Pitting corrosion
 - 2.5 Intergranular corrosion
 - 2.6 Stress corrosion cracking
 - 2.7 Hydrogen damage
- 3 The effect of environment on the rate and form of corrosion
 - 3.1 Relative humidity
 - 3.2 Air pollutants
 - 3.3 Temperature
 - 3.4 Water chemistry
- 4 Practical session
 - 4.1 Visual identification of common metals & alloys
 - 4.2 Measurement of corrosion potentials of common metals
 - 4.3 Construction of galvanic series
 - 4.4 Visual identification of corrosion processes:
 - 4.4.1 The anode and cathode in a corrosion cell
 - 4.4.2 Stress cell due to cold working
 - 4.5 Principle of galvanic corrosion and cathodic protection
- 5 Common corrosion problems associated with gold, silver, copper, bronze, lead, aluminium, iron and steel artefacts
 - 5.1 When they are exposed to atmosphere
 - 5.2 Buried in soil
 - 5.3 Immersed in water
- 6 Effects of hot- & cold-working on the corrosion resistance of artefacts
 - 6.1 Introduction to metal casting, brazing and soldering
 - 6.2 Metallurgical factors and their influence on corrosion
 - 6.3 Induced stress within artefacts and the impact on corrosion resistance
- 7 The nature and protective properties of corrosion products (layers) found on artefacts
 - 7.1 Protective layers
 - 7.2 Detrimental layers
 - 7.3 General guidelines for cleaning & removing corrosion products
- 8 Corrosion control and prevention -modification of the local environment
 - 8.1 Use of corrosion inhibitors



Course Outline

8.2 Use of metallic and organic coatings
 8.3 Cathodic protection
 9 Corrosion testing and monitoring
 9.1 Unit of expression for corrosion rate
 9.2 Common methods for corrosion testing
 9.2.1 Oddy Test
 9.2.2 Iodide-Azide Test

9.2.3 Beilstein Test
 9.2.4 Phloroglucinol Hydrochloric Acid Test
 9.2.5 Chromotropic Acid Test
 9.2.6 Iodide-Iodate Test
 9.3 Electrochemical methods for corrosion testing and monitoring

Course Registration

Please register online at 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: \$2,500 **Discount:** \$2,250

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.