



FKD3270 Electrochemical Techniques for Corrosion Study - Theory and Practice 6.0 credits

Elektrokemimetoder för korrosionsstudier - teori och praktik

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

Course syllabus for FKD3270 valid from Spring 2014

Grading scale

Education cycle

Third cycle

Specific prerequisites

Basic electrochemistry, some experience with the techniques.

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

After successful completion of the course, the student should have sufficient knowledge to use common electrochemical techniques for corrosion research and able to interpret the results correctly.

Course contents

Basic electrochemical concepts, potentials and currents, DC techniques (OCP, LPR, Tafel Polarization, PD, CPD and CV), EIS, Mott-Schottky plot.

The course includes introduction lectures, lab practice with instruments and software, and seminars by the PhD students who have used the techniques, and thorough discussions of different techniques by the students.

Course literature

Chosen chapters from relevant books.

Examination

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

The examination will be based on the performance at the seminar (lecture and response to the questions).

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.