



COURSE DATASHEET

Semester:	2013/14/1
Course:	Methods of corrosion protection and prevention I.
Code:	VEMKFKT117A
Responsible department:	Department of Physical Chemistry
Department code:	MKFK
Responsible instructor:	dr. András Dallos

Course objectives:

Description of the active corrosion protection from theoretical and practical point of view

Course content:

Cathodic protection
Cathodic protection criteria
Establishment of cathodic protection
 Anodes of cathodic protection systems
 Reference electrodes
 Cathodic protection connector
 The grounding problem and the insulating piece
 Thermowells questions
 Cables and wires
The design of cathodic protection
 The basic design of cathodic protection data
 The cathodic protection plan
Coatings on steel structures in soil
 The main types of coating materials
 Additional materials

Requirements, evaluation and grading:

After a half an hour's preparation the examinee gives an oral presentation on the topic for about 20-25 minutes.

Fail (1) when the examinee is unable to prove either the definition of the basic notions or the short scheme of things connected with the topic.

Pass (2) when the examinee is able to interpret the basic notions of the topic.

Satisfactory (3) when the examinee is well - versed in the basic notions of the topic and is able to present their logic connections - with the help of the examiner.

Good (4) when the examinee provides a logic, well - structured presentation with all the important facts and connections but he does not know or partly knows the required reading material connected with the topic.



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Requirements, evaluation and grading:

Very good (5) when the examinee gives a logic, excellent, well-structured, perfect in details oral presentation that completely reveals the connection of the concepts within the topic

Required and recommended readings:

Fémek Korróziója és a korrózió elleni védelem módszerei, gyakorlata

Szerk.: dr. Horváth Márton, VEKOR Kft. 2011

Corrosion basics, ed. A. de S. Brasunas, NACE, Houston, 1984.

Comprehensive Treatise of Electrochemistry Vol.4 Electrochemical Materials Science Ed., Bockris J. O'M., Conway B. E., Yeager E. White R.E. Plenum New York 1981

Mantell: Electrochemical Engineering Mc Graw-Hill. 1980