



HN2009 Chemical Hazards in the Working Environment 7.5 credits

Kemiska arbetsmiljörisker

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

Establishment

Course syllabus for HN2009 valid from Autumn 2011

Grading scale

A, B, C, D, E, FX, F

Education cycle

Second cycle

Main field of study

Technology and Health

Specific prerequisites

Academic first degree, 180 higher education credits/ECTS, within technical or natural science or equivalent education and Swedish B/Swedish 3 and English A/English 6.

Language of instruction

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

Intended learning outcomes

After the course, the students shall:

- Know about the general legislation and provisions for the use of chemical products at the workplace, including the EU regulation about REACH and the labelling system CLP.
- Know about health hazards with common industrial chemicals and be able to find and interpret information about health hazards based on safety data sheets and toxicological literature and be able to use this information in risk assessment of the use of chemicals.
- Know about common microbiological risks, in what environments they occur and how the risks can be controlled. Know about how microbiological risks are assessed.
- Know the demands on companies management of their chemicals and be able to support companies in that management, e.g. how to make an inventory of chemical products. Be able to adapt the management methods to the companies needs and prerequisites.
- Know about control strategies to reduce the chemical hazards. Be able to discuss control strategies in relation to common chemical risks and be able to critically discuss the different strategies.
- Know how air contaminants are measured and be able to interpret the results from such measurements. Know some basic measuring strategies and be able to describe what measuring strategies can be used for and critically discuss the strategies.

Course contents

Chemical and biological health hazards, chemical management, measuring methods, risk assessment, processventilation, substitution, control measures, legislation.

Course literature

Tre kompendier från OHlearning.com

- W507 Health effects of hazardous substances. Student manual.
- W501 Measurement of hazardous substances. Student manual.
- W505 Control of hazardous substances. Student manual.

Process- och industriventilation. ISBN 91-7522-894-7, Prevent 2005

Alvarez de Davila E. Mikroorganismer i arbetsmiljön. ISBN 97-8917-365-0236, Prevent (utgången från förlaget, finns tillgänglig via kursansvarig)

KemiGuiden, www.kemiguident.se

AFS 2015:7 Hygieniska gränsvärden (börjar gälla från 1a juni 2016)

AFS 2014:43 Kemiska arbetsmiljörisker

Examination

- RED1 - Account, 5.0 credits, grading scale: P, F
- TEN1 - Examination, 2.5 credits, grading scale: A, B, C, D, E, FX, F

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.

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

Presentation of study tasks, mandatory attendance at at least 70 % is required for passing the course, P/F (5,0 hp)

Written examination, A-F, (2,5 hp)

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.