



KF2520 Design of Products in Materials Chemistry 7.5 credits

Design av produkter inom materialkemin

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

Establishment

Course syllabus for KF2520 valid from Autumn 2014

Grading scale

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

Education cycle

Second cycle

Main field of study

Chemical Science and Engineering

Specific prerequisites

Admission requirements for programme students at KTH:

At least 150 credits from grades 1, 2 and 3 of which at least 110 credits from years 1 and 2, and bachelor's work must be completed, within a programme that includes:

75 university credits (hp) in chemistry or chemical engineering, 20 university credits (hp) in mathematics and 6 university credits (hp) in computer science or corresponding.

Admission requirements for independent students:

75 university credits (hp) in chemistry or chemical engineering, 20 university credits (hp) in mathematics and 6 university credits (hp) in computer science or corresponding. Documented proficiency in English corresponding to English B.

Language of instruction

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

Intended learning outcomes

After finished course the student should be able to:

- explain how the innovation process is conducted on a fundamental level
- pitch own idea to an audience
- develop functional solutions for product design
- set up performance profile
- perform economic analysis
- formulate criteria for determining whether the product can be produced or not

In addition, the student should have obtained insights into how the process is effectively performed in a company.

Course contents

The course is mainly project based. The student will work with an advanced design mission within their own area of interest, together with a team. The basic knowledge from materials chemistry, the lectures in this course and other relevant subjects will be used to find solutions to the design problem. The course will provide skills in setting up specifications and carrying out innovative processes.

Course literature

Scientific and technical articles for the individual project will be determined in consultation between student, supervisor and examiner.

Examination

- PRO1 - Project, 7.5 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.

The final grade will be the same as the grade from the project work.

The project work includes a written report and an oral presentation

Other requirements for final grade

Passed project work, written report and oral presentation

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.