

SYLLABUS

Senior Design Project in Chemistry 7.5 credits K7004K

Projektkurs i Kemi

Course syllabus admitted: Autumn 2023 Sp 1 - Present

**DECISION DATE
2022-02-11**

Senior Design Project in Chemistry 7.5 credits K7004K

Projektkurs i Kemi

Second cycle, K7004K

Education level	Grade scale	Subject	Subject group (SCB)
Second cycle	G U 3 4 5	Kemi	Chemistry

Main field of study

Chemical Engineering

Entry requirements

At least 90 credits in Chemical Engineering. Good knowledge in English, equivalent to English B/6. For exchange students, the examiner makes an individual examination of the qualification depending on the type of project.

Selection

The selection is based on 30-285 credits

Course Aim

The student shall independently design, carry out and report a project within the subject of chemistry.

This means that on completion of the course the student is able to:

1. Formulate a relevant problem for investigation from a chosen subject within the subject of Chemistry.
2. Apply knowledge and proficiency that has been acquired during the period of study to a smaller research project in an independent and systematic way.
3. Choose and justify the study method in research.
4. Analyse and defend the chemical problem and plausible hypotheses formulated without a complete set of information and experimental data.
5. Locate and critically review information and summarise this in a scientific manner.
6. Plan, structure and execute a research project.
7. Judge the scientific and practical relevance of the results obtained.
8. Work to a timetable following the identified milestones and validating the working hypotheses.
9. Express themselves well in writing in a verbally and scientifically correct manner.
10. Create and execute an oral presentation of the results of the project, properly arguing and defending the conclusions achieved.

Contents

The project content is related to frontiers in research and unsolved problems in chemical sciences and to be chosen in cooperation with the examiner.

Realization

Each course occasion's language and form is stated and appear on the course page on Luleå University of Technology's website.

The student will work independently under guidance from the examiner of the course in collaboration with other researchers involved in this (or related) projects. Laboratory facilities, access to selected scientific instruments will be provided after appropriate tutorials and safety instructions. Study visits can be planned if the project is performed in collaboration with the R&D of a company involved in collaboration with LTU in the project. Regular project meetings and seminar presentations will ensure the progress in the project and the necessary assistance and amendments of original plans will be coordinated to achieve the targeted goals.

Examination

If there is a decision on special educational support, in accordance with the Guideline Student's rights and obligations at Luleå University of Technology, an adapted or alternative form of examination can be provided. The course is assessed through a written final report and a compulsory oral seminar presentation in front of the research group at the end of the project work. Both written and presentation skills and the ability to respond to questions during the research seminar will be assessed and will equally contribute to the final grades.

Unauthorized aids during exams and assessments

If a student, by using unauthorized aids, tries to mislead during an exam or when a study performance is to be assessed, disciplinary measures may be taken. The term "unauthorized aids" refers to aids that the teacher has not previously specified as permissible aids and that may assist in solving the examination task. This means that all aids not specified as permissible are prohibited. The Swedish version has interpretative precedence in the event of a conflict.

Transition terms

2500

Course offered by

Department of Civil, Environmental and Natural Resources Engineering

Modules

Code	Description	Grade scale	Cr	Status	From period	Title
0001	Passed oral and written presentation	G U 3 4 5	7.5	Mandatory	A07	Yes

Study guidance

Study guidance for the course is to be found in our learning platform Canvas before the course starts. Students applying for single subject courses get more information in the Welcome letter. You will find the learning platform via My LTU.

Last revised

by Assistant Director of Undergraduate Studies Eva Gunneriusson, Department of Civil, Environmental and Natural Resources Engineering 2022-02-11

Syllabus established

Course plan approved by the Department of Chemical Engineering and Geosciences 2007-05-28.