

KEMX11, Chemistry: Applied Course, 15 credits

Kemi: Tillämpningskurs, 15 högskolepoäng

First Cycle / Grundnivå

Details of approval

The syllabus was approved by Study programmes board, Faculty of Science on 2007-03-01 and was last revised on 2007-03-01. The revised syllabus applies from 2007-07-01, autumn semester 2007.

General Information

The course is an elective first-cycle course for a degree of Bachelor of Science, main field of study Chemistry.

Language of instruction: English and Swedish

Main field of studies

Chemistry

Depth of study relative to the degree requirements

G2F, First cycle, has at least 60 credits in first-cycle course/s as entry requirements

Learning outcomes

The aim of the course is to provide students with additional knowledge in one of the branches of chemistry, training in chemical research methodology and the ability to conduct a minor research study with some degree of independence.

The objective is that the students, on completion of the course, shall have acquired the following knowledge and skills:

- use literature or other information searches to collect, compile and assimilate the background facts required to address the research issue concerned
- independently execute a practical and/or laboratory research project, continuously documenting the work in a lab journal, and ensuring that the project plan is either followed or revised appropriately
- acquire methodological, experimental and theoretical skills in conjunction with the research issue
- interpret and assess the results obtained in order to perform troubleshooting and appropriate control experiments throughout the project

- produce in writing and orally present a report of a limited scope describing the research issue, methods and results in both a scholarly and a popular science manner

Course content

In consultation with the supervisor and examiner, the student is to select a laboratory and/or theoretical task related to a current chemical issue. The task is to be linked to one of the following branches of chemistry: analytical chemistry, biochemistry, physical chemistry, chemical physics, molecular biophysics, inorganic chemistry, organic chemistry or theoretical chemistry.

The project can be performed at any research division within the Department of Chemistry, or, if approved by the examiner, at another higher education institution or non-academic environment.

Course design

The teaching consists of literature studies and a supervised research project.

The project is to be concluded with a written and oral presentation of the results. The written report is to contain an introduction to the chosen task with references to literature, a material and methods section that enables others to repeat the experiment, and a presentation and discussion of the results obtained.

The presentation is to be published in the faculty's degree project database, and include a summary in English and a brief popular science description of the project in Swedish, intended for a wider audience. The oral presentation is to be made at a public seminar in the presence of the supervisor and the examiner/examining committee.

If the examiner finds that the project submitted by the student does not meet the requirements for a passing grade, the student shall be given the opportunity to revise the project and submit it for reassessment.

Assessment

Subcourses that are part of this course can be found in an appendix at the end of this document.

Grades

Marking scale: Fail, Pass, Pass with distinction.

For a grade of Pass on the whole course, the student must have passed the written report and oral presentation.

The grade is determined by the examiner/examining committee, in consultation with the supervisor. The final grade is based on an aggregate of all the practical and theoretical components of the course.

Entry requirements

To be admitted to the course, students must have basic eligibility, and have passed at least 60 credits in chemistry.

Subcourses in KEMX11, Chemistry: Applied Course

Applies from H07

0701 Applied Course, 15,0 hp
Grading scale: Fail, Pass, Pass with distinction