Faculty of Science

KEML0X, Chemistry: Bachelor's Degree Project, 30 credits

Kemi: Examensarbete för kandidatexamen, 30 högskolepoäng

First Cycle / Grundnivå

Details of approval

The syllabus was approved by Study programmes board, Faculty of Science on 2011-08-26 to be valid from 2011-08-29, autumn semester 2008.

General Information

The course is a compulsory first-cycle course for a degree of Bachelor of Science, main field of study Chemistry (see section "Further information").

The degree project is done in one of the specialisations stated below. For each specialisation the course code is also stated for the equivalent specialisation in the degree project.

KEML11 Organic Chemistry
KEML12 Inorganic Chemistry
KEML13 Biochemistry
KEML15 Molecular Biophysics
KEML16 Analytical Chemistry
KEML07 Physical Chemistry
KEML08 Theoretical Chemistry
KEML09 Chemical Physics

Language of instruction: English and Swedish
When necessary, the course in full is given in English.

Main field of studies	*Depth of study relative to the degree requirements*
Chemistry	G2E, First cycle, has at least 60 credits in first-cycle course/s as entry requirements, contains degree project for BA/BSc

Learning outcomes

The aim of the degree project is to provide the students advanced and supplementary knowledge within one of the subareas of chemistry and to give training in chemical research methodology and an ability independently to carry out a research project of

limited extent.

After completed work, the student should

- show ability to through literature or other information retrieval acquire, compile and profit by the background facts that are needed to process a problem scientifically
- show such skills that is required to carry out a laboratory and/or theoretical research project of restricted extent independently
- show ability to document his work continuously and ensure that the project plan either is followed or be revised in an appropriate manner
- show good methodological, experimental and theoretical skills in connection with the problem
- show ability to interpret and evaluate received results both to carry out troubleshooting and to carry out appropriate control experiments during the work
- compile in writing and orally present a report that describes the problem, methods and results in a scientific and popular scientific manner
- ability to make assessments around the scientific, social and ethical aspects of the problem

Course content

The focus of the degree project and its design are decided in consultation with the supervisor. The project may focus on any area of Chemistry, as described in section "General Information", and can be carried out at the relevant unit within the Chemistry Department but, after agreement with the examiner/grading committee, may be carried out at another higher education department or outside the university. Work shall comprise literature studies that survey the background to the selected research task and contain laboratory and/or theoretical tasks.

Course design

For publication in the faculty database for degree projects an English summary and a short, popular science description in Swedish, intended for a wider audience, must be appended.

Assessment

If the examiner considers that the work as submitted couldn't be awarded a passing grade, the student will be given the opportunity to revise the work for further assessment.

Grades

Marking scale: Fail, Pass, Pass with distinction.
For Pass on the course students must have a pass on the written project report, a pass in the oral presentation and material must have been submitted to the faculty's database.

The examiner/grading committee determine the grade of the degree project after consultation with the supervisor. The final grade is decided through weighting the

assessment of the project's implementation and the written and oral presentations.

The grade for material submitted to the faculty's database is Participated.

Entry requirements

To be eligible for this course students must have basic eligibility and 105 higher education credits in completed Chemistry courses, including:

- KEMA00 General and Analytical Chemistry 7.5 credits, KEMA01 Organic Chemistry – Basic Course 7.5 credits, KEMA02 Inorganic Chemistry – Basic Course 7.5 credits and KEMA03 Biochemistry – Basic Course 7.5 credits
- KEMB09 Physical Chemistry – Basic Course 15 credits,
- MOBA02 Chemistry of the Cell 15 credits,
- KEMB06 Analytical Chemistry 15 credits,
- KEMB01 Organic Chemistry 15 credits,
- KEMB12 Inorganic Chemistry 7.5 credits and
- KEMB29 Spectroscopy and Dynamics 7.5 credits

In addition to courses in Chemistry, the student must have passed courses in Mathematics equivalent to

- MATA01 Mathematics for Scientists 1 15 credits or MATA11 Mathematics 1 Alpha 15 credits.

Equivalent knowledge that has been gained in another way also provides eligibility for the course.

Further information

The course, KEML0X Chemistry: Bachelor's Degree Project, 30 credits, can be replaced in the degree by KEMK0X Chemistry: Bachelor's Degree Project, 15 credits.