UNIVERSITY OF GOTHENBURG

DEPARTMENT OF CHEMISTRY AND MOLECULAR BIOLOGY

KEM929 Chemistry, Bachelor Thesis, 30 credits

Kemi, kandidatarbete, 30 högskolepoäng

First Cycle

Confirmation

This course syllabus was confirmed by Department of Chemistry and Molecular Biology on 2013-10-11 and was last revised on 2019-03-27 to be valid from 2019-03-27, spring semester of 2019.

Field of education: Science 100%
Department: Department of Chemistry and Molecular Biology

Position in the educational system

The course syllabus is a revised version of an earlier syllabus established by the Department of Chemistry 03/04/2008 and latest revised 11/10/2013.
The course is classified at the level 120-180 credits for Degree of Bachelor. The course can be read as a free-standing course.

The course can be part of the following programmes: 1) Bachelor of Science Programme in Medicinal Chemistry (N1LMK) and 2) Bachelor of Science Programme in Chemistry (N1KEM)

Main field of studies	*Specialization*
Chemistry	G2E, First cycle, has at least 60 credits in first-cycle course/s as entry requirements, contains degree project for BA/BSc
Chemistry with Specialization in Medicinal Chemistry	G2E, First cycle, has at least 60 credits in first-cycle course/s as entry requirements, contains degree project for BA/BSc

Entry requirements

For admission to course, passed result on completed courses worth 120 credits are required, comprising passed courses in chemistry worth 75 credits.

Learning outcomes

The student should, with support from their supervisor, carry out an independent project and thereby train their ability to apply the accumulated knowledge they acquired during their education. On completion of the course, the student is expected to account for the independently completed work, including a scientific analysis, in the form of a written report and an oral presentation at a seminar.
The student should be able to:

Knowledge and understanding

- **document** both a broad knowledge of chemistry/medicinal chemistry in general and an advanced understanding in the field of chemistry/medicinal chemistry relevant for the thesis,
- **relate** their own work to current research questions.

Competence and skills

- in an independent way **formulate** a scientific problem and **define the scope** for their work,
- **handle** arising problems,
- **keep a critical** distance to the obtained results,
- **hold** the agreed in deadlines an acceptable way,
- **adapt** both the report and the oral presentation to the chosen target group: a student in chemistry/medicinal chemistry at the end of their undergraduate education and with a different field of specialization

Judgement and approach

- **critically analyse** published articles in the research domain of the thesis,
- both in writing and orally **put** his own work **in relation to** general questions about the role of knowledge in society and the responsibility of a chemist/medicinal chemist for how it is used.

Course content

The course consists of an experimental or theoretical work for which the student themselves should search supervision from one of the teachers of department or, after approval from department, an external supervisor. If appropriate the supervisor should give an introduction to the project and present its background and goals. Both for literature and experimental works, the student should demonstrate independence in their ability to formulate problems and to draw own conclusions based on the underlying work. The project should require one semester's full-time studies, including write-up and presentation. The result of the independent project should be presented in the form of a

monograph as well as an oral presentation.

Form of teaching

Independent experimental or theoretical work where the student independently formulates problems and draws their own conclusions. The result is presented in the form of a written report and an oral presentation.

Language of instruction: English and Swedish

Assessment

Examination takes place based on the written work and the oral presentation. The assessment of the independent work is performed according to the common grading criteria formulated for Faculty of natural sciences 27/05/2014. For a student who has not passed at the ordinary examination, additional examination sessions will be offered, the total number of examination sessions being five.

If a student who has has failed twice on the same part of the examination wishes to change examiner before the next examination session, such request should be submitted in writing to the department and be approved if there are not special causes against it.

Grades

The grading scale comprises: Pass with Distinction (VG), Pass (G) and Fail (U). Regarding application of the ECTS scale for grade please see Vice-Chancellor decision 28/05/2007, diary nr G 8 1976/07.

Course evaluation

A student who participates in or has completed the course should be given the opportunity to anonymously express experiences of and views on the course in a course evaluation.

Additional information

Teaching is performed in Swedish or English depending on the situation of the student.