Department of Materials and Environmental Chemistry

Stockholm University

Education plan

for

Bachelor's Programme in Chemistry
Kandidatprogram i kemi

180.0 Higher Education Credits
180.0 ECTS credits

Programme code:	NKEMK
Valid from:	Spring 2009
Date of approval:	2006-10-18
Changed:	2008-09-01
Department:	Department of Materials and Environmental Chemistry

Decision

This study programme has been approved by the Board of the Faculty of Science at Stockholm University.

Prerequisites and special admittance requirements

Swedish upper secondary school courses Mathematics D, Physics B and Chemistry B, or equivalent.

Programme structure

The education consists of a compulsory basic block comprising 120 higher education credits, an optional part comprising 45 higher education credits, and a degree project of 15 higher education credits. In order to continue the studies after the basic block, the student must have obtained a Pass grade for at least 75% of the basic block education. The programme offers a structured choice of courses with a scope and depth that will enable the student to meet the requirements for a Bachelor's degree, comprising in-depth studies within the main field of Chemistry.

Goals

For a Bachelor’s degree with Chemistry as major field, the student must demonstrate:
• Knowledge and understanding of the major field, including the scientific foundation of the subject.
• Knowledge of relevant chemical methodology.
• Advanced knowledge within the major field, and be knowledgeable in topical research issues.
• Ability to search, gather and critically interpret relevant information for a problem, and to critically discuss phenomena, problems and situations within the major field.
• Ability to independently identify, formulate and solve problems related to the major field, and to carry out tasks within given time limits
• Ability to, orally and in writing, account for and discuss information, problems and solutions within the major field, in interaction with different groups.
• Skills required for independent work within the major field.
• Ability to make evaluations within the major field, with regard to relevant scientific, societal and ethical aspects.
• Insight into the societal role of chemical science and into human responsibility for the use of knowledge within the major field.
• Ability to identify the need for additional knowledge and development of competence within the major field.

Courses

Term 1–3. Compulsory courses:
General Chemistry, FC, 15 higher education credits.

Biophysical Chemistry, FC, 15 higher education credits.
Organic Chemistry I, FC, 15 higher education credits.
Biochemistry I, FC, 15 higher education credits.
Mathematics for Science Students, FC, 15 higher education credits.
Molecular Chemistry, FC, 15 higher education credits.
Term 4–6, Compulsory courses:
Analytical Chemistry I, FC, 15 higher education credits.
Inorganic Chemistry, FC, 7.5 higher education credits.
Modern Materials – Inorganic Chemistry, FC, 7.5 higher education credits.
Degree Project in Chemistry, at least 15 higher education credits.
Term 4–6, Optional courses within the major field, chemistry:
Courses in Chemistry, at least 15 higher education credits.
The choice of optional courses is decided by the department. The list of all optional courses is updated before the start of each academic year. When a programme begins, there will be a list showing a minimum choice of optional courses with guaranteed education during the programme period.
Term 4–6, Optional courses
Optional courses within or beyond the main field, 30 higher education credits.

Degree

Bachelor's degree.

Misc

In addition to the host department, the departments responsible for the programme are:
The department of Analytical Chemistry
The department of Biochemistry and Biophysics
The department of Environmental Chemistry
The department of Neurochemistry
The department of Organic Chemistry