Department of Biology Education

Stockholm University

Education plan

for

Bachelor's Programme in Molecular Biology
Kandidatprogram i molekylärbiologi

180.0 Higher Education Credits
180.0 ECTS credits

Programme code:	NMOLK
Valid from:	Autumn 2007
Date of approval:	2006-10-18
Department:	Department of Biology Education

Decision

This programme syllabus 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, Chemistry B and Biology B, or equivalent.

Programme structure

The programme consists of compulsory courses of 150 HEC, including at least 15 hp elective advanced courses in the main field of study, optional courses of up to 15 HEC and a degree thesis, alternatively, degree project of at least 15 HEC.

Goals

The main field of study is Molecular Biology. It is expected that the student after completed the program will be able to:
- demonstrate knowledge and understanding in their main field of study, including knowledge of the scientific basis of the field, knowledge of applicable methods in the field, in-depth knowledge of some part of the field and a general sense of current research issues;
- demonstrate an ability to seek, gather and critically interpret information that is relevant to a problem and to critically discuss phenomena, issues and situations;
- demonstrate an ability to independently identify, formulate and solve problems and to perform tasks within specified time limits;
- demonstrate an ability to present and discuss information, problems and solutions in dialogue with different groups, orally and in writing;
- demonstrate the skills required to work independently in the field that the education concerns;
- demonstrate an ability to make assessments in their main field of study, taking into account relevant scientific, social and ethical aspects;
- demonstrate insight into the role of knowledge in society and into people’s responsibility for how knowledge is used;
- demonstrate an ability to identify their need of further knowledge and to upgrade their capabilities.

Courses

Year 1, Compulsory courses:
General Chemistry FC, 15 HEC (KY2001), Biophysical Chemistry FC, 15 HEC (KY4003), Organic Chemistry FC, 15 HEC (KO3001), Biochemistry FC, 15 HEC (KB3002), Our Place in the Universe FC, 3

HEC (BL1001) optional.
Year 2, Compulsory courses: Microbiology FC, 6 HEC (BL3003)*, Biological Statistics FC, 3 HEC (BL3006)*, Molecular Cell Biology FC, 15 HEC (BL3001)*, Genetics I FC, 7,5 HEC (BL3003)*, Methods in Molecular Life Sciences FC, 7,5 HEC (BL4004), Genomics, Bioinformatics and Biostatistics FC, 7,5 HEC (BL4002), Physiology FC, 15 HEC (BL3005).
Year 3, Compulsory courses: Molecular Evolution and Phylogeny FC, 7,5 HEC (BL4010), Developmental Biology FC, 7,5 HEC (BL4009). Elective courses: degree thesis/degree project in Molecular Biology of at least 15 HEC (BL6004/BL6002)*. Courses of at least 15 HEC from a list of elective courses* The elective courses are decided by the department board. The list of all elevtive courses should be updated before each new academic year. Before the start of a programme, there should be a list of the minimum number of courses where teaching is guaranteed during the programme.
Optional courses 12-15 HEC. *The course is part of the main field of study.

Degree

Bachelor's degree.

Misc

Students who have been admitted to the programme but not completed it during the scheduled two/three years can request to complete the program even after the programme syllabus no longer applies. In such cases, the limitations stated in the course syllabus apply.