



# Education plan

for

**Master's Programme in Molecular Ecology**  
**Masterprogram i molekylär ekologi**

**120.0 Higher Education**  
**Credits**  
**120.0 ECTS credits**

**Programme code:** NMOEO  
**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

Admittance to the program requires knowledge equivalent to a Bachelor's degree, including a minimum of 90 credits in Biology. Swedish upper secondary school course English B or equivalent or one of the following tests; Cambridge CPE och CAE: Pass. IELTS : 6.0 (with no part of the test below 5.0). TOEFL (paper based): 550 (with minimum grade 4 on the written test part). TOEFL (computer based): 213. TOEFL (internet based): 79.

## Programme structure

The program is a collaboration together with Södertörn University College and consists of compulsory courses of 30 HEC, elective courses of at least 45 HEC, a degree project of at least 30 HEC and optional courses of up to 15 HEC.

## Goals

The main field of study is Molecular Ecology. After completing the education program the student is expected to

- demonstrate knowledge and understanding in their main field of study, including both broad knowledge in the field and substantially deeper knowledge of certain parts of the field, together with deeper insight into current research and development work; and
- demonstrate deeper methodological knowledge in their main field of study.
- demonstrate an ability to critically and systematically integrate knowledge and to analyse, assess and deal with complex phenomena, issues and situations, even when limited information is available;
- demonstrate an ability to critically, independently and creatively identify and formulate issues and to plan and, using appropriate methods, carry out advanced tasks within specified time limits, so as to contribute to the development of knowledge and to evaluate this work;
- demonstrate an ability to clearly present and discuss their conclusions and the knowledge and arguments behind them, in dialogue with different groups, orally and in writing, in national and international contexts; and
- demonstrate the skill required to participate in research and development work or to work independently in other advanced contexts.
- demonstrate an ability to make assessments in their main field of study, taking into account relevant scientific, social and ethical aspects, and demonstrate an awareness of ethical aspects of research and development work;
- demonstrate insight into the potential and limitations of science, its role in society and people's responsibility for how it is used; and

- demonstrate an ability to identify their need of further knowledge and to take responsibility for developing their knowledge.

### **Courses**

Year 1 & 2.

Compulsory courses:

Biological Statistics and Experimental Design SC, 7,5 HEC (BL8002), Molecular Ecology SC, 15 HEC (BL7012)\*, Communication in Science SC, 7,5 HEC (BL7002), Degree Project in Molecular Ecology SC, 30-60 HEC (BL9043/BL9044/BL9045).

Elective courses of at least 30 HEC of the following: Bioinformatics, 7,5 HEC\* (SH), Molecular Evolution and Bioinformatics, 15 HEC\* (SH), Molecular Microbial Ecology 15 HEC\*, Molecular Systematics SC, 7,5 HEC\* (BL8004), Molecular, physiological and behavioral interactions 7,5 HEC\* (SH), Population and Conservation Genetics SC, 7,5 HEC\* (BL8031), Animal Reproduction SC, 7,5 HEC\* (BL7003).

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 elective 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 0-15 HEC.

\*The course is part of the main field of study.

### **Degree**

Master'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.