

## Department of Biology Education

# Education plan

for

Master's Programme in Toxicology Masterprogram i toxikologi 120.0 Higher Education Credits 120.0 ECTS credits

Programme code:NTXIOValid from:Autumn 2012Date of approval:2012-03-05

**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 a Bachelor's degree in Biology or Molecular biology, including a minimum of 30 credits in Chemistry with at least 7,5 credits in Biochemistry or equivalent. Swedish upper secondary school course English B or equivalent or one of the following tests; Cambridge CPE och CAE: Pass. IELTS: 6.5 (with no part of the test below 5.5). TOEFL (paper based): 575 (with minimum grade 4.5 on the written test part). TOEFL (internet based): 90 (with a minimum score of 20 in the written test part).

## **Programme structure**

The program has two directions: direction on environmental toxicology and direction on radiation biology.

## Goals

The main field of study is toxicology with the directions environmental toxicology and radiation biology. 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

Direction on environmental toxicology.

Compulsory courses in the main field of study:

Cancer Biology SC, 15 HEC (BL7026), Degree Project in Environmental Toxicology SC, 30/45/60 HEC (BL9012, BL9013, BL9014) and coures of at least 15 HEC from a list of elective coures.

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 30-60 HEC.

Direction on Radiation Biology. Compulsory courses in the main field of study: DNA damage: signaling and repair SC, 15 HEC (BL8041) Cancer Biology SC, 15 HEC (BL7026) Radiation Biology SC, 15 HEC (BL7016).

Degree Project in Radiation Biology SC, 30/45/60 HEC (BL9015, BL9016, BL9017). Optional coures 15-45 HEC.

## **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.