

# Education plan

for

**Master's Programme in Genetic and Molecular Plant Science**  
**Masterprogram i genetisk och molekylär växtbiologi**

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

**Programme code:** NGVBO  
**Valid from:** Autumn 2012  
**Date of approval:** 2011-06-01  
**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

Admission to the programme requires a Bachelor's degree in Biology or Molecular Biology, including Biochemistry, Molecular Biology, and Plant Physiology of a total of at least 30 credits, or equivalent. Swedish upper secondary school course English B or equivalent.

## Programme structure

The program is a collaboration between the Swedish University of Agricultural Sciences in Uppsala, Stockholm University and Uppsala University. During the first year of the programme the Universities give one compulsory course of 15 HEC each. The remaining courses can be read at any of the three universities and consists of a degree project of 30-60 HEC, elective courses 15 HEC and optional courses of up to 30 HEC.

## Goals

The main field of study is Genetic and Molecular Plant Science. 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 in the main field of study:

Plant growth and development SC, 15 hp (UU)

Genetic Diversity and Plant Breeding SC, 15 hp (SLU)

Molecular Plant-Microbe Interactions SC, 15 HEC (SU)

Elective courses 15 HEC from a list of elective courses 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.

Degree Project in Genetic and Molecular Plant Science SC, 30/45/60 HEC (SU).

Optional courses 0-30 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.