## Appendix 1, Programme Syllabus for Plant Biology – Master's Programme

## Possibility for further studies

A student who has completed the Plant Biology – Master's programme and been awarded the qualification fulfils the specific entry requirements for third-cycle studies at the Faculty of Natural Resources and Agricultural Sciences in any of the subjects

- Biology
- Crop Production Science

The specific entry requirements are based on both first and second-cycle studies. Detailed requirements for each third-cycle subject area are shown in the respective study plan for the third cycle, see link

 $\underline{https://internt.slu.se/en/research-education-ema/phd-education/responsible-committees-and-director-of-studies/postgraduate-subjects/postgraduate-subjects-at-the-nl-faculty/$ 

This appendix to the programme syllabus was approved by the study programmes board on 12 November 2007 and is valid as of the 2007/08 academic year. (reg. no. SLU ua 30-1556/07).

# **Study plan for Plant Biology – Master's Programme**

## Programme structure for students admitted in autumn 2012

Specialisation Plant Production Biology

Year	Period 1	Period 2	Period 3	Period 4
1 2012/13	BI1044 Plant pathology, 15 credits Inclusive. introduction	BI1103 Genetic diversity and plant breeding, 15 credits	BI1002 Plant- microbe interactions, 10 credits BI1095 Microbial	BI1007 Biology and production of agricultural plants, 10 credits
			Ecology, 5 credits	BI1001 Plant physiology, 5 credits
2 2013/14	Optional course, 15 credits	Optional course, 15 credits	<b>EX0565</b> Independent project in Biology – Master's thesis, 30 credits	

Specialisation Plant Pathology (NorPath)

Year	Sommar	Period 1	Period 2	Period 3	Period 4
1	BI1097	BI1044	BI1103 Genetic	BI1002 Plant-	BI1007
2012/13	Plant	Plant pathology, 15	diversity and plant	microbe	Biology and
	pathology	credits	breeding, 15 credits	interactions, 10	production of
	in a	Inclusive.	eller	credits	agricultural plants, 10
	changing	Introduction	BI1084 Ecological	BI1095 Microbial	credits
	world, 5		methods, 15 credits	Ecology, 5 credits	BI0870 Diseases and
	credits,				pests of forest trees,
	SLU				5 credits
2		BI0874 Ecology	Optional course, 15	<b>EX0565</b> Independent project in Biology –	
2013/14		and management of	credits	Master's thesis, 30 credits	
		diseases and pests of			
		forest trees, 15			
		credits			
		or			
		Optional course, 15			
		credits			

Note: The programme structure consists of courses corresponding to 125 credits, but the degree may only comprise of 120 credits.

#### Specialisation Genetic and Molecular Plant Science

Year	Period 1	Period 2	Period 3	Period 4
1	Plant growth and	BI1103 Genetic	Molecular plant-	Genome function
2012/13	development, 15	diversity and plant	microbe	(Uppsala univer-
	credits	breeding, 15 credits	interactions, 15	sity)
	(Uppsala university)		credits (Stockholms	BI1007 Biology and
			university)	production of agri-
				cultural plants, 10
				credits
				BI1001 Plant
				physiology, 5
				credits
2	Plants in	Optional course, 15	<b>EX0565</b> Independent project in Biology –	
2013/14	Environmental	credits	Master's thesis, 30 credits	
	Treatment, 15			
	credits (Stockholms			
	university)			
	BI1044 Plant			
	Pathology, 15			
	credits			

## Alternative for year 2

	Period 1	Period 2	Period 3	Period 4
Alter- native	<b>BI0962</b> Genome analysis, 10 credits	BI0961 Bio- informatics, 10	<b>EX0565</b> Independent project in Biology – Master's thesis, 30 credits	
1	<b>BI1161</b> Genetically n 10 credits	credits nodified organisms,		
Alternative 2	BI0874 Ecology and management of diseases and pests of forest trees, 15 credits		<b>EX0565</b> Independent project in Biology – Master's thesis, 30 credits	

In order for the degree certificate to state that the programme was completed according to the programme syllabus for the Plant Biology – Master's Programme, specialisation Plant Production Biology, the following requirements must be met:

Compulsory courses:

- Biology and production of agricultural plants, 10 credits (BI1007)
- Microbial Ecology, 5 credits (BI1095)
- Genetic diversity and plant breeding, BI1103
- Plant microbe-interactions, 10 credits (BI1002)
- Plant pathology, 15 credits (BI1044)
- Plant physiology, 5 credits (BI1001)

Approved independent project (degree project) of 30 credits in biology with specialisation in plant biology.

In order for the degree certificate to state that the programme was completed according to the programme syllabus for the Plant Biology – Master's Programme, specialisation Genetic and Molecular Plant Science, the following requirements must be met:

Compulsory courses:

- Plant growth and development, 15 credits (Uppsala university)
- Genetic biodiversity and plant breeding, BI1103
- Molecular plant-microbe interactions, 15 credits (Stockholms university)

Compulsory of 15 credits of the following courses:

- Genome function, 15 credits (Uppsala university)
- Plants in Environmental Treatment, 15 credits (Stockholms university)
- Biology and production of agricultural plants, 10 credits
- Plant physiology, 5 credits
- Plant pathology, 15 credits

Approved independent project (degree project) of 30 credits in biology with specialisation in plant biology.

In order for the degree certificate to state that the programme was completed according to the programme syllabus for the Plant Biology - Master's Programme, specialisation plant pathology (NorPath), the following requirements must be met:

Approved programme courses of at least 60 credits of the following courses of which 40 credits must be courses in plant pathology

Courses in plant pathology:

- Plant pathology in a changing world, 5 credits NOVA-course Compulsory
- Plant pathology, 15 credits (BI1044) Compulsory
- Plant-microbe interactions, 10 credits (BI1002) NOVA-course
- Diseases and pests of forest trees, 5 credits (BI0870)
- Ecology and management of diseases and pests of forest trees, 15 credits (BI0874)
- NorPath-courses in plant pathology at participating universities (not overlapping with the courses above).

#### Other programme courses:

- Biology and production of agricultural plants, 10 credits (BI1007)
- Genetic diversity and plant breeding, BI1103
- Ecological methods, 15 credits (BI1084)
- Microbial Ecology, 5 credits (BI1095)
- NorPath-kurser at participating universities (not overlapping with the above)

Approved independent project (degree project) of 30 credits in biology with specialisation in plant biology. The independent project carries out with supervisors from two of the partner universities within NorPath.

Optional course within the three specialisations may be, for example

- Any of the courses above
- Agricultural cropping systems, 5 credits (BI1179)

- Applied population biology, 15 credits (BI1082)
- Bioinformatics, 10 credits (BI0961)
- Genetically modified organisms, 10 credits (BI1161)
- Genome analysis, 10 credits (BI0962)
- Global crop production, 5 credits (BI0880) Not given in 2012/2013 academic year
- Molecular ecology and evolution, 15 credits (BI1164) (first cycle level)
- Soil and water chemistry, 10 credits (MV0186)
- Soil biology, 5 credits (BI0883)
- Soils of the world, 5 credits (MV0162)

This appendix to the programme syllabus was approved by the study programmes board on 13 October 2011 (Reg. no. SLU.ua.Fe.2011.3.0-3110). Revised on 26 January 2012.

#### Appendix 3, Programme Syllabus for Plant Biology – Master's Programme

### **Instructions for independent projects**

All independent projects (degree projects) must follow the joint guidelines that apply for independent work at SLU (REB 2011-07-01, Reg. no. SLU ua Fe.3.0-2336). This means that they are to be managed under the same routines and remits as other higher education. Independent projects are tied to a syllabus and the guidelines state that for projects comprising 15 credits or more, the syllabus must specify that they are to be published in Epsilon and examined for plagiarism in Urkund. In exceptional cases publication may be delayed; if so this must be stated in the student's individual work plan. The individual work plan is to serve as a supplement to the curriculum and must specify how the independent project will fulfil the intended learning outcomes related to the degree. The supervisor and the examiner may not be the same person, and the same guidelines apply for independent project examiners as for examiners on other courses (REB 2011-07-01, Reg.no. SLU ua Fe.2011.3.0-2335).

Agreements with external clients are handled in a separate contract between SLU and the client. In cases where students have an external supervisor there must also be a principal supervisor at SLU who is responsible for ensuring that the project is carried out in accordance with SLU's guidelines and the current syllabus.

In addition to the general instructions that apply for all programmes and to the instructions in the syllabus for independent projects in Biology (Independent project in Biology – Master's thesis) an independent project on the Plant Biology – Master's Programme must be related to the intended learning outcomes specified in the programme syllabus.

This appendix to the programme syllabus was approved by the study programmes board on 24 April 2008 and is valid as of the 2007/08 academic year. (Reg. no. SLU ua 30-1556/07).