



Curriculum of the Master degree programme

“Phytomedicine”

Code: 066 422

**University of Natural Resources
and Life Sciences, Vienna**

Center for International Relations

For legal purposes, only the version of the curriculum that has been published in the official journal (Mitteilungsblatt) is binding and valid - this English translation is for information purposes only.

Table of contents

§ 1	Description of qualification.....	3
	General goals of the field of study.....	3
	Field of activity.....	3
	Profile of requirements.....	3
	Special educational aims and goals.....	3
	Fields of work.....	3
§ 2	Format of the Master degree programme	4
§ 3	Academic qualification.....	4
§ 4	Types of courses	4
	(1) Lectures (VO):	4
	(2) Practical exercises (UE):	4
	(3) Seminars (SE):	4
	(4) Excursions (EX):	4
	(5) Project courses (PJ):	4
	(6) Combinations (VU, VX, VZ, VY, VS, UX, UY, SX)	4
§ 5	Timetable of courses	5
	Used abbreviations:	5
	(1) Compulsory courses	5
	(2) Elective courses.....	6
§ 6	Thesis for the Master degree	7
§ 7	Graduation requirements.....	7
§ 8	Admission to the Master degree programme	8
§ 9	Commencement	8
§ 10	Transitional regulations	8

Impressum

Center for International Relations
University of Natural Resources and Life Sciences, Vienna
Peter Jordan Strasse 82a, 1190 Vienna
Austria, Europe
Phone:(+43-1)-47654-2600
Fax:(+43-1)-47654-2606
e-mail: zib(at)boku.ac.at
<http://www.zib.boku.ac.at/>

Published and printed with support of ERASMUS–OM-funds

Issued in October, 2010

Curriculum of the Master degree programme “Phytomedicine”

At the University of Natural Resources and Life Sciences, Vienna

As at October 1st, 2010

§ 1 Description of qualification

General goals of the field of study

It is the goal of this Master degree programme to combine and compile the hitherto existing relevant subjects in agricultural and forestry areas as well as related subjects from neighbouring professional fields such as biology and biotechnology. These compiled subjects are focused on one common emphasis, plant health. Thus, this Master degree programme in its orientation and conception is new and unique in the German as well as the English speaking context. Being so, it offers students a favoured access to existing and future fields of work and at the same time the University of Natural Resources and Life Science, Vienna, broadens its supply in the field of life science with this highly attractive Master degree programme.

Field of activity

In the German-speaking parts of Europe, the term phytomedicine comprises all professional fields which deal with the causes, development and spread of damages due to biotic or abiotic genesis on plants as well as the development and application of prophylactic and controlling counter measures. In opposition to this the term “phytomedicine” in English-speaking parts of Europe is often used synonymously for plant medicine in its human medical context.

Profile of requirements

The Master degree programme aim at graduates of Bachelor degree programmes or other intermediate diploma in the fields of forestry or agricultural sciences, biology, biochemistry, biotechnology, landscape architecture, cultivation, environmental and life science, horticulture and market gardening as well as other equivalent programs of study offered by national and international universities.

Special educational aims and goals

Due to the many diverse areas of expertise which can be comprised under the term of phytomedicine and the limited selection today’s university graduates from a German-speaking background only had contact with few of the subjects relevant to forestry, agricultural science or biology during their studies. Here it seems useful as well as advisable to implement a program of study which focuses on this aspect and makes it a central point of the field of study. Future graduates should be equipped with an established professional and broad interdisciplinary knowledge and furthermore be particularly qualified for problem-solving skills in the area of phytomedicine due to their field of specialisation.

Fields of work

Graduates of the Master degree programme phytomedicine are especially enabled to work in the following fields of work:

Industrial research and development

Industrial counselling and sales

Public research and teaching

Counselling in agriculture and forestry pest management

Special administrative office work in Chambers for Agriculture and ministries

Working as a evaluator and consultant

Arbory and wood maintenance

Development aid

Information technology

§ 2 Format of the Master degree programme

The Master degree programme in phytomedicine comprises four semesters and is made up of 120 ECTS credits. Of the total number of credits 38 ECTS are compulsory courses (§2 (1)), 45 ECTS are elective courses (§2 (2)) and 7 ECTS are free elective courses (§2 (3)). 30 ECTS are assigned to the thesis for the Master degree.

§ 3 Academic qualification

According to § 54 (1) of the university law of 2002 the Master degree programme phytomedicine is an engineering degree. In accordance with this classification of engineering degrees, graduates of the Master degree programme will be awarded the academic qualification "Diplom-Ingenier of technical sciences", shortened to "Dipl.-Ing." or "DI".

§ 4 Types of courses

Courses within this degree are defined as follows:

(1) Lectures (VO):

Courses in which portions of an academic discipline and the methods involved are didactically presented.

(2) Practical exercises (UE):

Practical exercises are courses which are in professional connection to a lecture. They serve to apply specific practical abilities and skills presented theoretically during the lectures. Furthermore, these practical exercises also serve the acquisition of specific practical knowledge.

(3) Seminars (SE):

Seminars are courses which assist in the development of academic abilities. They serve to acquire knowledge autonomously and deepen learned course content and scientific discussion.

(4) Excursions (EX):

Excursions are courses held in Austria and abroad and focus on aspects of the Master degree programme which cannot be imparted at the University of Natural Resources and Life Science itself.

(5) Project courses (PJ):

These are characterised by problem-based learning. Within a certain topic, students work, primarily in small groups with assistance, through case studies involving the definition of a problem through realisation of the project to the production of written work.

(6) Combinations (VU, VX, VZ, VY, VS, UX, UY, SX)

Courses in which aspects of courses referred to in (1) to (4) are combined didactically:

Lectures with practical exercises (VU)

Lectures with excursions (VX)

Lectures with seminars and excursions (VSX = VY)

Lectures with practical exercises and excursions (VUX = VZ)

Lectures with seminars (VS)

Exercises with excursions (UX)

(7) If necessary courses can also be held out of the University of Natural Resources and Life Science, Vienna.

§ 5 Timetable of courses¹

Used abbreviations:

SST = weekly semester hours

ECTS = European Credit Transfer System points

WS = Winter Semester

SS = Summer Semester

(1) Compulsory courses

All courses (to an extent of 38 ECTS) have to be completed successfully.

<i>Number</i>	<i>Type</i>	<i>Name</i>	<i>Semester</i>	<i>SST</i>	<i>ECTS</i>
P-1 Basics in Phytomedicine					
911.305	VO	Environmental Toxicology	WS	2.0	3.0
916.311	VU	Analytical Methods in Patophysiology	SS	2.0	3.0
916.313	VU	Diagnosis of Biotic and Abiotic Damage of Forest Trees	SS	2.0	3.0
916.315	VU	Parasitology and Pathology of Forest Trees	SS	2.0	3.0
916.318	VU	Experimental Phytopathology	WS	2.0	3.0
953.303	VO	Parasitology and Pathology of Crop Plants	SS	2.0	3.0
953.304	VZ	Principles and Methods in Weed Control	WS & SS	1.0+1.0	3.0
953.305	UX	Plant Protection II - Practical Course	SS	2.0	3.0
953.306	UE	Laboratory Diagnosis of Plant Damages	WS	2.0	3.0
953.307	VO	Chemistry and Application of Pesticides	SS	2.0	3.0
953.308	VO	Legislation in Environmental and Plant Protection affairs	SS	2.0	3.0
953.320	VU	Biological Plant Protection	WS	2.0	3.0
<i>Number</i>	<i>Type</i>	<i>Name</i>	<i>Semester</i>	<i>SST</i>	<i>ECTS</i>
P-2 Master seminar					

¹ A more detailed description of all courses, including objective of the course, course contents, name of lecturer, prerequisites, recommended reading, teaching methods, assessment methods and language of instruction, is found in the BOKUonline: <https://online.boku.ac.at/>

SE	Master Thesis Seminar ²	WS or SS	2.0	2.0
----	------------------------------------	----------	-----	-----

(2) Elective courses

Courses to an extent of 45 ECTS have to be chosen and completed successfully.

<i>Number</i>	<i>Type</i>	<i>Name</i>	<i>Semester</i>	<i>SST</i>	<i>ECTS</i>
Elective courses					
772.312	VO	Plant Biochemistry	WS	2.0	2.0
791.111	VO	Plant Biotechnology	WS	2.0	3.0
791.112	UE	Plant Biotechnology Practical Course	SS	3.0	4.5
814.303	VO	Environmental Physics Measurement Methods of Soil-Plant Atmosphere Soil-Plant Atmosphere	WS	2.0	3.0
831.302	VU	Methods of measuring Stress Resistance in plants	SS	2.0	3.0
831.311	VO	Biology and Ecology of Weeds	SS	2.0	3.0
831.313	VO	Water Relations in Plants	WS	2.0	3.0
835.304	VU	Mathematical Modelling in Agricultural Sciences	SS	3.0	4.5
851.301	VO	Experimental Design	WS	2.0	3.0
851.302	UE	Experimental Design - Lab	WS	2.0	3.0
874.307	VU	Care and Assessment of Trees	WS	3.0	4.5
912.317	VS	Effects of Air Pollutants and Nutrient Deficiencies on Mountain Forests	WS	2.0	3.0
912.323	VU	Chemical Analyses of Forest Soils, Soil Solution- and Plant Samples	SS	3.0	4.5
916.309	VU	Genetics Aspects in Entomology	WS	2.0	3.0
916.310	VU	Ecological Measures in Forest Protection	WS	3.0	4.5
916.312	VU	Advanced Forest Entomology & Pathology	SS	2.0	3.0
916.317	VU	Tree Diseases in Urban Areas and Cultural Landscapes	WS	2.0	3.0
951.325	VO	Molecular Plant Breeding	WS	2.0	3.0
952.153	VY	Phytopathology in Horticulture	WS	2.0	3.0
953.102	VY	Applied Entomology in Orchards, Vineyards and Horticultural Crops	WS	2.0	3.0
953.310	VZ	Soil-Borne Pathogenes and Symbionts	SS	2.0	3.0
953.301	VO	The Ecological Basis of Biological Control	WS	2.0	3.0
<i>Number</i>	<i>Type</i>	<i>Name</i>	<i>Semester</i>	<i>SST</i>	<i>ECTS</i>

² The Master Thesis Seminar is completed at the institute at which the thesis is supervised. Please contact your thesis supervisor for further information.

953.302	VZ	Plant Protection in Rooms and Gardens	SS	2.0	3.0
953.309	VU	Introduction to Plant Nematology	WS	1.0	1.5
953.311	VO	Integrated Plant Protection in Orchards and Vineyards	WS	2.0	3.0
953.312	VU	Integrated and Biological Pest Management in Horticultural Crops	WS	2.0	3.0
953.313	SE	Current Plant Protection Issues	WS	2.0	3.0
953.314	VX	Protection of Stored Crops	SS	2.0	3.0
953.315	VU	Phytopharmacology	SS	2.0	3.0
953.316	VO	Phytopathology	WS	2.0	3.0
953.318	VO	Biotechnology in Phytomedicine	SS	2.0	3.0
953.321	UY	Integrated Plant Protection in Orchards and Vineyards	SS	2.0	3.0
953.322	VU	Plant- Virology and -Bacteriology	SS	2.0	3.0
954.309	VU	Molecular Phytopathology	SS	3.0	4.5
954.321	VO	Plant Molecular Biology	SS	2.0	3.0
954.318	SE	Developmental Genetics of Plants	WS and SS	2.0	3.0
916.321	VO	Transgenic Organisms in Pest Management	SS	2.0	3.0
916.322	SE	Transgenic Organisms in Pest Management	SS	1.0	1.5

§ 6 Thesis for the Master degree

- (1) A thesis for the Master degree is an integral part of the Master degree programme. 30 ECTS are granted for the thesis for the Master degree.
- (2) The scientific subject of the graduation paper has to be chosen from a subject relevant and related to the Master degree programme Phytomedicine.
- (3) The supervision and grading of the candidate's work is incumbent upon the university professor who has assigned the chosen subject for the graduation paper.
- (4) The completed graduation paper has to be presented and defended in a public expert talk before it is graded. The result of this presentation has to be taken into consideration for the grading of the graduation paper.
- (5) At the end of the Master degree programme the thesis has to be handed in at the office responsible for study judicial affairs.

§ 7 Graduation requirements

- (1) The Master degree programme phytomedicine is concluded upon the successful completion of the following requirements:
 - positive completion of all required compulsory courses including 38 ECTS (according to §2 (1) and §5 (1)),
 - positive completion of all required elective courses to an extent of 45 ECTS (according to §2 (2) and §5 (2)),

- positive completion of all required free elective courses to an extent of 7 ECTS (according to §2 (3)),
- positive evaluation of the Master degree thesis and its public defence.

(2) Evaluation takes place as course exams. Course examination may be oral and / or written, as defined by the lecturer. Students are granted the right to request a different method of course examination. This can only be done in co-operation with the lecturer and by stating a justifiable reason.

(3) The graduation paper is a scientific piece of work which serves the evidence of the student's ability to work on a scientific subject autonomously and in a way that is justifiable regarding content as well as methodology. (§ 51 (1) Z. 8 UG 2002).

(4) The completed graduation paper has to be presented and defended in a public expert talk. This presentation and defence has to be organised by the supervisor of the thesis. At least one additional university lecturer with respective professional knowledge has to be nominated. This person also has to participate in the subsequent expert talk. The candidate has the right to suggest this person. This summoned university lecturer has to be informed on the topic of the graduation paper in advance.

§ 8 Admission to the Master degree programme

Graduates of Bachelor degree programmes taken from the field of agricultural sciences, forestry, as well as technical disciplines, biology and other equal studies of all national and international universities are admitted to the Master degree programme phytomedicine.

§ 9 Commencement

The Master degree programme Phytomedicine comes in force on October 1, 2004.

§ 10 Transitional regulations

- (1) Regular students, who are permitted to follow the diploma degree programme according to their degree course scheme on the basis of the UniStG from 1. 10. 1999, may continue to follow their degree programme. From the effective date of the new degree programmes for Bachelor and Master degrees, these students are permitted to complete their degree within the legal duration period, with the addition of one extra semester, according to § 80 b (2) UniStG. If the degree is not completed within this period, then the student will be required to follow the Bachelor degree programme for the remainder of his / her studies (An admission to the Master degree programme can only occur after the positive completion of a Bachelor degree programme, see § 3).
- (2) For regular students who started their studies before the commencement of the degree course scheme on the basis of the UniStG and who continue their studies according to the regulations of § 80 paragraph 2-4 UniStG there is no change in their transitional regulations.
- (3) For students, who continue their degree according to a diploma degree programme there is an equivalence list which shows which courses or groups of courses from the offers of the Master degree programme of the respective diploma degree programme are equivalent to the Master degree programme. Courses of diploma degree programmes, which are no longer offered or no longer assessed have to be completed according to the equivalence list of the Master degree programme.