UNIVERSITÄT HOHENHEIM

FAKULTÄT AGRARWISSENSCHAFTEN

Crop Sciences

Master of Science

Curriculum

September 2014

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Preamble

This curriculum provides applicants and students as well as teaching and administrative staff with information about the M.Sc. programme „Crop Sciences“. It contains information on the programme structure and summarizes the most important examination regulations.

The information presented reflects the current situation. Titles and contents of compulsory and optional modules are sometimes subject to change. Due to administrative reasons such changes can only be considered in printed materials with delay. For this reason all information is provided without liability.

If in doubt, please refer to the co-ordinator of the programme (cropsciences@uni-hohenheim.de) to obtain up-to-date information. For up-to-date module descriptions please refer to the web-pages at www.uni-hohenheim.de/modulkatalog. **Time schedules and lecture halls of all courses offered at the University of Hohenheim are displayed in the Course Catalogue of the University of Hohenheim**, available at the beginning of each semester online on the university's homepage: **www.uni-hohenheim.de.**

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The Master's Programme „Crop Sciences"

Programme Objectives

The goal of crop sciences is to develop crops and cropping systems with highest possible efficiency in converting light and supplemental resource into food, feed, and fiber. Biological, physiological, molecular genetic and biometric principles are applied and graduates are prepared to develop cropping systems that are profitable and ecologically sustainable.

Programme Design

The two-year M.Sc. programme "Crop Sciences" comprises four semesters, during which thematic modules and the Master Thesis have to be completed.

One of the following majors has to be chosen and the title of the chosen major will be reported in the transcript of records.

- „Plant Breeding and Seed Science"
- „Plant Nutrition and Protection "

The full programme has an extent of 120 ECTS credits and is constructed by 4 semesters each with 30 ECTS-credits. The language of instruction is English and the programme can be started in October (winter semester) each year.

Modules

Most modules last the full length of the semester. Some elective modules are offered as blocked courses, each including three weeks of instruction, one week of individual preparation, and an exam at the end of week four.

Each module of 6 credits corresponds to a workload of 4 SWS (weekly contact hours per semester), which is 56 contact hours per module. Each module of 7.5 credits corresponds to a workload of 5 SWS (weekly contact hours per semester), which is 70 contact hours per module. In addition time for preparation at home is needed, summing up to a total workload of about 160 hours for one module of 6 credits and 200 hours for one module of 7.5 credits. Each module may consist of different forms of teaching (e.g. seminar, lecture, practical, excursions).

Module Descriptions

For the contents of all modules see: **www.uni-hohenheim.de/modulkatalog**.

Individual Timetable

The Course Catalogue of University of Hohenheim contains information on times, lecturers and lecture rooms of all courses and is available at the beginning of each semester online at the university's homepage: www.uni-hohenheim.de. It is linked to the Module Descriptions. A tool to compose an individual timetable is available on the Intranet. Mind: especially non-blocked modules often consist of more than one course.

Stucture of the major „Plant Breeding and Seed Science"

	1. Semester	2. Semester	3. Semester	4. Semester
6 Credits	3502-440 **Methods of Scientific Working** (for Crop Sciences)	3402-450 **Advanced Statistical Methods for Metric and Categorical Data**	3501-460 **Planning of Breeding Programmes**	**Master Thesis** (30 credits)
6 Credits	3502-450 **Population and Quantitative Genetics**	3501-450 **Breeding Methodology**	3501-470 **Selection Theory**	
6 Credits	Elective Module	3504-430 **Seed Research**	Elective module	
6 Credits	Elective Module	Elective module	Elective module	
6 Credits	Elective Module	Elective module	Elective module	

Major: Plant Breeding and Seed Science

The **compulsory modules** (42 credits) are:

Sem	Code	Name of Module	Duration	Credits	Professor
1	3502-440	**Methods of Scientific Working (for Crop Sciences)**	1 Semester (in the morning)	6	Schmid
1	3502-450	**Population and Quantitative Genetics**	1 Semester	6	Schmid
2	3501-450	**Breeding Methodology**	1 Semester	6	Melchinger
2	3504-430	**Seed Research**	1 Semester	6	Kruse
2	3402-450	**Advanced Statistical Methods for Metric and Categorical Data**	1 Semester	6	Piepho
3	3501-470	**Selection Theory**	1 Semester	6	Melchinger
3	3501-460	**Planning of Breeding Programmes**	1 Semester	6	Melchinger

The **elective modules** can be chosen from the listing below or from the modules of other Master programmes of the faculty of Agricultural Sciences of the University of Hohenheim. On request to the examination board and with the approval of a mentor, modules can be chosen from other programmes of the University of Hohenheim.

Suggestions for **elective modules** for **Plant Breeding and Seed Science** (48 credits have to be chosen):

Sem	Code	Name of Module	Duration	Credits	Professor
1-4	3000-410	Portfolio-Module (Master)	Not defined	1 - 7,5	Müller, T.
1	3302-440	Physiology and Biochemistry of Crops	1 Semester (in the morning)	6	Ludewig
1	3603-480	Entomology	1 Semester	6	Zebitz
1/3	3402-420	Quantitative Methods in Biosciences	1 Semester	6	Piepho
1	3504-440	Seed Technology	1 Semester	6	Kruse
2	3502-470	Plant Genetic Resources	1 Semester	6	Schmid
2	3503-470	Basics of Bioinformatics	1 Semester	6	Scholten
3	3402-460	Advanced Statistical Methods for Metric and Categorical Data II	1 Semester	6	Piepho
3	3502-810	Quantitative Methods in Plant and Livestock Genomics	1 Semester	6	Schmid
3	3503-450	From Genes to Transgenic Plants	1 Semester (in the morning)	6	Scholten
3	3503-460	Transgenic Organisms in Research and Agriculture	1 Semester	6	Scholten

Blocked Modules *(significant time overlapping with unblocked modules!)*

Sem	Code	Name of Module	Duration	Credits	Professor
2	4602-500	Biologische Sicherheit und Gentechnikrecht	Block 2, SS	7,5	Beyer
2	3501-480	Breeding of Tropical, Ornamental, and Vegetable Plants	Block 3, SS	7.5	Melchinger
3	3503-460	Molecular Plant Genetics	Block 4, WS	7.5	Scholten

Stucture of the major „Plant Nutrition and Protection"

	1. Semester	2. Semester	3. Semester	4. Semester
6 Credits	3502-440 **Methods of Scientific Working** (for Crop Sciences)	Elective module	Elective module	**Master Thesis** (30 credits)
6 Credits	3302-500 **Methods in Molecular Biology and Biotechnology**	Elective module	Elective module	
6 Credits		Elective module	Elective module	
6 Credits	3302-440 **Physiology and Biochemistry of Crops**	Elective module	Elective module	
6 Credits	3503-450 **From Genes to Transgenic Plants**	Elective module	Elective module	

Instead of choosing fife elective modules per semester (each 6 credits) as shown above, the major "Plant Nutrition and Protection" offers the possibility to choose four blocked modules (each 7.5 credits) offered by the Faculties of Agricultural Sciences and/or Natural Sciences during the second and/or the third semester. Choosing modules of the Faculty of Natural Sciences requires the approval of a mentor and a request to the examination board.

Major: Plant Nutrition and Protection

The **compulsory modules** (30 credits) are:

Sem	Code	Name of Module	Duration	Credits	Professor
1	3502-440	**Methods of Scientific Working (for Crop Sciences)**	1 Semester (in the morning)	6	Schmid
1	3302-440	**Physiology and Biochemistry of Crops**	1 Semester (in the morning)	6	Ludewig
1	3503-450	**From Genes to Transgenic Plants**	1 Semester (in the morning)	6	Scholten
1	3302-500	**Methods in Molecular Biology and Biotechnology**	1 Semester (in the afternoon)	12	Ludewig

The **elective modules** can be chosen from the listing below or from the modules of other Master programmes of the faculty of Agricultural Sciences of the University of Hohenheim. On request to the examination board and with the approval of a mentor, modules can be chosen from other programmes of the University of Hohenheim.

Suggestions for **elective modules** ***for Plant Nutrition and Protection*** (60 credits have to be chosen):

Sem	Code	Name of Module	Duration	Credits	Professor
1-4	3000-410	Portfolio-Module (Master)	Not defined	1 - 7,5	Müller, T.
1/3	3402-420	Quantitative Methods in Biosciences	1 Semester	6	Piepho
2	3302-430	Molecular Plant Nutrition	1 Semester	6	Ludewig
2	3401-450	Conservation Agriculture	1 Semester	6	Claupein

Sem	Code	Name of Module	Duration	Credits	Professor
2	3302-490	Rhizosphere Processes - Nutrient Acquisition and Stress Adaptations of Higher Plants	1 Semester	6	Neumann
2	3402-450	Advanced Statistical Methods for Metric and Categorical Data	1 Semester	6	Piepho
2	3502-470	Plant Genetic Resources	1 Semester	6	Schmid
2	3602-460	Information Technologies and Expert Systems in Plant Protection	1 Semester (partly blocked)	6	Gerhards
2	3603-420	Crop Protection in Organic Farming	1 Semester	6	Zebitz
2	3603-490	Biological Pest Control	1 Semester	6	Zebitz
2	3603-500	Exercises in Biological Pest Control	Summer school	7,5	Zebitz
2	3701-420	Qualitätsrelevante Inhaltsstoffe von Nutzpflanzen	1 Semester	6	Graeff-Hönninger
2	3701-450	Biotechnologische Methoden in der Landwirtschaft	1 Semester	6	Zörb
2/3	3301-480	Fertilisation and Soil Fertility management in the Tropics and Subtropics	e-learning 1 Semester	6	Müller, T.
3	3302-450	Plant Symbioses for Nutrient Acquisition		6	Neumann
3	3302-460	Plant Quality	1 Semester	6	Ludewig
3	3601-460	Molecular Phytopathology	1 Semester (partly blocked)	6	Vögele
3	3602-450	Molecular Aspects of Plant Protection	1 Semester	6	Gerhards
3	3603-480	Entomology	1 Semester	6	Zebitz
3	3701-440	Forschungsaspekte qualitätsrelevanter Inhaltsstoffe *(not offered in WS 14/15!)*	1 Semester	6	Graeff-Hönninger
3	3801-420	Crop Production Systems	1 Semester	6	Cadisch
3	3102-410	Applied Microbiology (= Environmental Microbiology)	1 Semester	6	Kandeler
3	3503-460	Transgenic Organisms in Research and Agriculture	1 Semester	6	Scholten

Suggestions for semester packages of **blocked elective modules** including modules offered by the **Faculty of Natural Sciences.** Choosing modules of the Faculty of Natural Sciences – codes starting with "1" or "2" - requires the approval of a mentor and a request to the examination board. Most modules have a strictly limited number of participants; access is not guaranteed.

Modules for a blocked summer semester (with 4 modules x 7.5 credits)**:**

Sem	Code	Name of Module	Duration	Credits	Professor
2	2601-430	Entwicklungsbiologie der Pflanzen*	Block 1, SS	7,5	Schaller
2	4602-500	Biologische Sicherheit und Gentechnikrecht	Block 2, SS	7,5	Beyer
2	3801-430	Integrated Agricultural Production Systems	Block 2, SS	7,5	Cadisch

Sem	Code	Name of Module	Duration	Credits	Professor
2	3802-420	Biodiversity, Plant and Animal Gen. Resources	Block 2, SS	7.5	Sauerborn
2	1101-430	Modelling and Simulation of Biochemical Reaction Networks*	Block 3, SS	7,5	Kügler
2	3803-450	Crop Production Affecting the Hydrological Cycle	Block 3, SS	7,5	Asch
2	2202-400	Pathogens, Parasites and their Hosts, Ecology, Molecular Interactions and Evolution*	Block 4, SS	7,5	Mackensted
2	3803-430	Ecophysiology of Crops in the Tropics and Subtropics	Block 4, SS	7,5	Asch
2	3603-500	Exercises in Biological Pest Control	Summer school	7,5	Zebitz

** Limited number of participants!*

Modules for a blocked winter semester (with 4 modules x 7.5 credits):

Sem	Code	Name of Module	Duration	Credits	Professor
3	3000-410	Portfolio-Module (Master)	Not defined	7.5	Müller, T.
3	2601-410	Pflanze-Pathogen Interaktionen*	Block 2, WS	7.5	Schaller
3	2602-500	Regulatorische Prinzipien pflanzlicher Signaltransduktionswege	Block 3, WS	7.5	Schulze
3	3503-460	Molecular Plant Genetics	Block 4, WS	7.5	Scholten

** Limited number of participants!*

Credit Point System Marks and Grades

With each completed module the students earn credits for the workload associated with each module. The M.Sc. programme has a total requirement of 120 credits. The credit point system used in the M.Sc. programme is fully compatible with the European Credit Transfer System, ECTS.

The examination result is expressed in grades and marks. The highest score is 1.0 [grade A]. A score of 4.0 [grade D] is required for passing. The end score is calculated as a weighted average score according to the credits achieved in all modules and the Master Thesis.

	marks and grades		
	grades		*mark*
excellent performance	*very good*	A	1.0
		A-	1.3
performance considerably exceeding the above average standard	*good*	B+	1.7
		B	2.0
		B-	2.3
performance meeting the average standard	*medium*	C+	2.7
		C	3.0
		C-	3.3
performance meeting minimum criteria	*pass*	D+	3.7
		D	4.0
performance not meeting minimum criteria	*fail*	F	5.0

Study and Examination Plan

Students have to seek advice of one of the mentors of the programme on which elective modules are suitable for their individual profile. During the first month of study a counselling confirmation has to be signed by a co-ordinator or mentor and handed in to the examination office, before registration for module examination is possible. After registration for examination a module cannot be dropped any more.

Examinations

Each module is examined upon completion in an oral or a written exam. The examination may be divided in sections which can be weighted differently. The weighting of the partial performances (in-course assessments = ICA) is written down in the module descriptions. The examinations of the modules should be taken within the semester scheduled in this curriculum. The examinations of the blocked modules are held at the end of the respective block period. Those for the unblocked modules are held in the two examination periods that follow the lectures. Students will be registered by signature automatically for the three compulsory modules offered in the first and second semester. The registration for the examination of the semi-elective and elective modules will take place by submitting the verified study and examination plan to the examination office. The study and examination plan has to be submitted one week before the first examination of a semi-elective or elective module at the latest. Withdrawal on the first trial of each module examination is possible up to 7 days before the examination date. The examination will be postponed to the next possible examination period.

Please mind that plagiarism, that means the take-over of text or phrases in a written examination (even within a partial performance) without quoting them accordingly, will be marked as attempt of deception and the respective examination performance is to be graded "fail" (F; mark 4.0). A declaration (https://agrar.uni-hohenheim.de/plagiate.html?&L=1) has to be attached to homework, presentations, and to the thesis and the final digital text document has to be transferred to the mentoring supervisor.

The claim for examination expires if:

- a minimum of six examinations has not been passed by the end of the second semester at the latest
- an examination of one of the modules has not been passed by the end of the sixth semester at the latest
- in one of the 15 modules an exam has to be repeated more than two times.

The claim for examinations does not expire, if the candidate cannot be held responsible for the failure to comply with the deadline. The students themselves are responsible for complying with these examination deadlines as well as all other regulations given in the examination regulations. The examination regulations and a leaflet on registration (https://pruefungsamt.uni-hohenheim.de) are distributed by the examination office.

Exam Repetition

In case of failure the examination office will inform the student via mail. Normally, the letter includes the repetition date. In some cases the date for repetition has not been pointed out at the time of informing the students. Students are responsible themselves to check with the responsible professor or the examination office about dates for repeater exams. Usually repeater exams for blocked modules will be scheduled by the responsible professor within the same semester. Repeater exams in lectures will usually automatically be scheduled for the next examination period.

Master Thesis

The Master Thesis shall show that the candidate is able to work independently on a problem in the field of „Crop Sciences“, within a fixed period of time by applying scientific methods. The exam consists of a written part (thesis) and an oral presentation (defence). The candidate has to defend the essential arguments, results and methods of the thesis in a colloquium of 30-45 minutes. The written part of the Master Thesis has to be completed within a period of six

months. It is usually written during the fourth semester. There might be cases, depending on the chosen modules, for which the third semester is more appropriate. Thesis work can pursue empirical or theoretical questions related to ongoing research projects but students' own initiatives and ideas are certainly welcome. It includes a literature review as well as new and original data derived from field and or laboratory work. This work can be carried out either at University of Hohenheim or at one of the partner universities.

Quality Assurance

The quality of courses and modules is evaluated in a two year rotation by the students of all study programmes. The evaluation sheets are distributed and evaluated by the Faculty of Agricultural Sciences and the results are sent back to the lecturers in an **anonymous** format. The lecturers are asked to discuss the results with the students at the end of their courses.

Academic calendar

In the winter semester (WS) courses usually begin in week 42 and end in week 6 or 7 of the new year. In the summer semester (SS) courses usually begin the first Monday in April and end in week 30, 31, or 32. For un-blocked modules the lecture period of each semester is followed by an ex-amination period of three weeks. The last block period of each semester has an overlapping with this examination period of the unblocked modules.

Mentoring

A personal mentor from the teaching staff is assigned to advice on appropriate profiles and support smooth and goal-oriented study progress. The study and examination plan has to be signed by a mentor before it is handed in to the examination office. The following scientists have been appointed as mentors:

Plant Breeding and Seed Science:

- Prof. Dr. Schmid (Crop Biodiversity and Breeding Informatics, 350)

Plant Nutrition and Protection:

- Prof. Dr. Ludewig (Nutritional Crop Physiology, 340)
- Prof. Dr. Neumann (Nutritional Crop Physiology, 340)
- Prof. Dr. Zebitz (Applied Entomology, 360)
- Prof. Dr. Voegele (Phytopathology, 360)

Academic advisor

providing specific information on the disciplines:

- Dr. Tobias Schrag (tobias.schrag@uni-hohenheim.de, phone: 459-23483)

Study Abroad	Students are encouraged to spend one semester in the second year at a partner university abroad, to gain additional experience and further strengthen their individual profile. Our credit point system is intended to facilitate the mutual acceptance of courses attended at different universities. Assessment is based on the European Credit Transfer System (ECTS), which facilitates such kind of international mobility. German students are strongly advised to spend a semester abroad. Particularly, the third semester is suitable for integrated study abroad. Students will preferably spend this time at one of the partner universities of the Euroleague for Life Sciences: Universität für Bodenkultur Wien (BOKU), Austria; Royal Veterinary and Agricultural University (KVL), Denmark; Swedish University of Agricultural Sciences (SLU), Sweden; Wageningen University, Netherlands; Czech University of Agriculture (CUA), Czech Republic, Warsaw Agricultural University (SGGW), Poland. On the basis of an agreement on quality standards the members of the Euro League for Life Sciences have agreed to mutually recognize study achievements. Quantitative parity of study achievements is based on the European Credit Transfer System (ECTS). Students may also request to spend the semester at universities other than mentioned above.
Degree	After successful completion of all modules as well as the thesis, the student is awarded the degree "Master of Science" (M.Sc.) in Crop Sciences. This degree entitles the student to continue with a Ph.D./doctoral programme if the total grade is above average.
Responsible Scientist	Prof. Dr. C. Zebitz Department of Applied Entomology
Professors in charge of the majors	Prof. Dr. U. Ludewig, Nutritional Crop Physiology Prof. Dr. K. Schmid, Crop Biodiversity and Breeding Informatics Prof. Dr. R. Voegele, Phytopathology
Contact	Programme Coordinator Crop Sciences Kerstin Hoffbauer University of Hohenheim (790) 70593 Stuttgart Germany Tel. +49-(0) 711-459-23328 Fax +49-(0) 711-459-23315 E-mail: cropsciences@uni-hohenheim.de http://www.uni-hohenheim.de/cropsciences

Module Duration within all Master's Programmes of the Faculty of Agricultural Sciences

Master's Programme			Semester Structure from WS 14/15 on			
Programme	**Specialisation**	**Language**	**Winter Semester 1** (Compulsory-/SE)	**Summer Semester1** (Compulsory/SE/Elective)	**Winter Semester 2** (Compulsory/SE/Elective)	**Summer Semester 2**
AW	Agrartechnik	German	Whole Semester	Whole Semester	Whole Semester	Master's-Thesis
	Bodenwissenschaften	German	Whole Semester	4 Weeks Blocked	Whole Semester	Master's-Thesis
	Pflanzenproduktionssysteme	German	Whole Semester	Whole Semester	Whole Semester	Master's-Thesis
	Tierwissenschaften	German	Whole Semester	4 Weeks Blocked	Whole Semester	Master's-Thesis
Agribusiness		German	Whole Semester	Whole Semester	Whole Semester	Master's-Thesis
NawaRo		German	Whole Semester	Whole Semester	Whole Semester	Master's-Thesis
Crop Sciences	Plant breeding & seed scien.	English	Whole Semester	Whole Semester	Whole Semester	Master's-Thesis
	Plant nutrition & protection		Whole Semester	Package Fak. A and/or N	Package Fak. A or N	Master's-Thesis
AgriTropics		English	Whole Semester	4 Weeks Blocked	Whole Semester	Master's-Thesis
AgEcon		English	Whole Semester	Whole Semester	Whole Semester	Master's-Thesis
Landscape Ecology		English	4 Weeks Blocked	4 Weeks Blocked	Whole Semester	Master's-Thesis
EnviroFood		English	Whole Semester	4 Weeks Blocked	Whole Semester	Master's-Thesis
Bioeconomy		English	Whole Semester	Whole Semester	Package Fak. W/A or N	
Double Degree	**Specialisation**					
EnvEuro	Ecosystems & Biodiversity	English	Whole Semester	4 Weeks Blocked	Whole Semester	Master's-Thesis
	Environmental Impacts		Whole Semester	4 Weeks Blocked	Whole Semester	Master's-Thesis
	Environmental Management		Whole Semester	4 Weeks Blocked	Whole Semester	Master's-Thesis
	Climate Change		Whole Semester	4 Weeks Blocked	Whole Semester	Master's-Thesis
	Soil Resources & Land Use		Whole Semester	4 Weeks Blocked	Whole Semester	Master's-Thesis
EurOrganic		English	Whole Semester	Whole Semester	Whole Semester	Master's-Thesis

Geblockte Module der Fakultät Agrarwissenschaften für das Wintersemester 2014/15 Stand: 19.09.2014
Blocked Modules Winter Semester 2014/15

● = Pflicht/Compulsory ◖ = Wahlpflicht/Semi-elective ○ = Wahl/Elective

Blockperiode / Period Studiengang / Study Course	Block 1 13.10. - 07.11.2014	Block 2 10.11. - 05.12.2014	Block 3 08.12.14 – 19.12.14/ 07.01. – 16.01.2015	Block 4 19.01. - 13.02.2015	Holiday Block (March)
B.Sc. Agrarwissenschaften					◖ **4402-210** (Jungbluth) Planung von Nutztierhaltungssystemen *(6 credits!)*
					○ **4701-220** (Weiler) Nutztiersystemmanagement – Schwein *(6 credits!)*
M.Sc. Agrarwissenschaften Tierwissenschaften					● **4502-410 (**Mosenthin) Futterwertbeurteilung, FM-mikrobiologie und ..
M.Sc. EnviroFood					◖ **3003-410** (Schöne) Food Safety and Quality Chains *(6 credits!) (17.3.-27.3.+ 10.4.)*
M.Sc. Landscape Ecology	● **3201-560** (Schurr) Landscape Ecology *(7.5 credits!)*	● **3201-570** (Schurr) Community and Evolutionary Ecology *(7.5 credits!)*	● **3201-580** (Schurr) Conservation Biology *(7.5 credits!)*	● **3202-440** (Fangmeier) Plant Ecology *(7.5 credits!)*	
Sonstige M.Sc./Other M.Sc.					○ **4802-470** (Focken) Experimental Aquaculture *(6 credits!) (2.-13.3. in Ahrensburg)*

Anmeldemodalitäten für Teilnahme siehe Modulkatalog / Check module descriptions for how to register for participation (https://www.uni-hohenheim.de/modulkatalog.html)

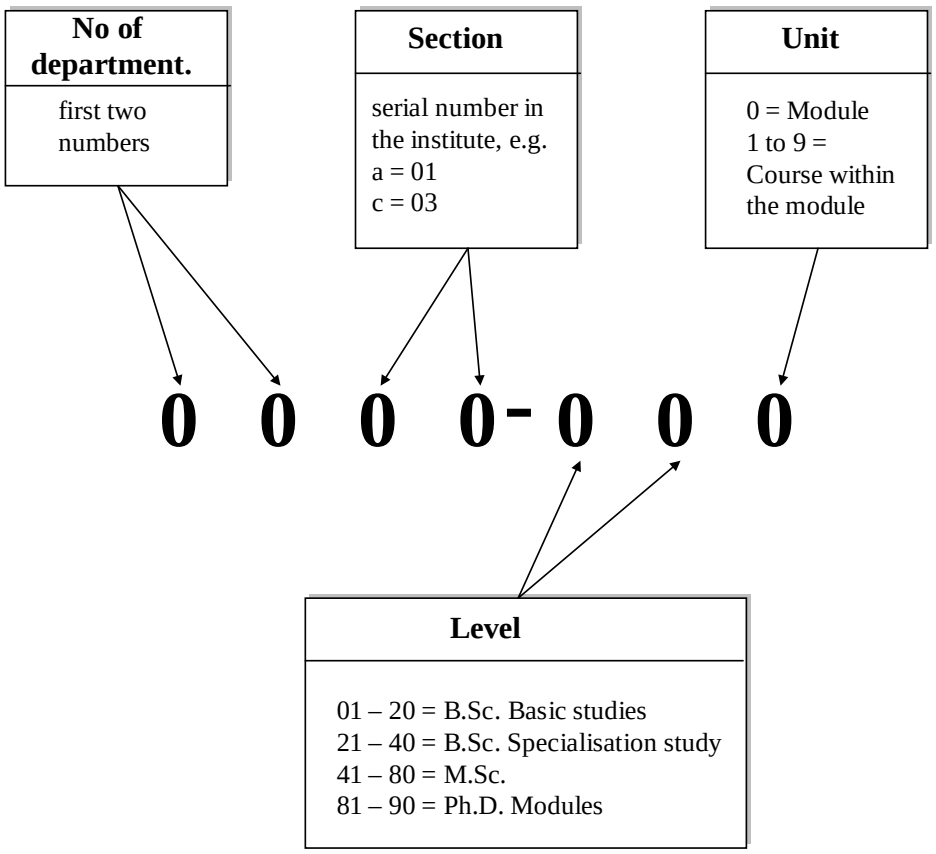
Geblockte Module der Fakultät Agrarwissenschaften für das Sommersemester 2015 Stand: 19.09.2014
Blocked Modules Summer Semester 2015

● = Pflicht/Compulsory ◖ = Wahlpflicht/Semi-elective ○ = Wahl/Elective

Blockperiode / Period Studiengang / Study Course	**Block 1** *(7,5 credits)* **13.04. - 08.05.2015**	**Block 2** *(7,5 credits)* **11. - 22.05. / 01. - 12.06.2015**	**Block 3** *(7,5 credits)* **15.06. - 10.07.2015**	**Block 4** *(7,5 credits)* **13.07. - 07.08.2015**	**By arrangement** *(7,5 credits)*
M.Sc. Agrarwissenschaften Bodenwissenschaften	◖ **3103-450** (Streck) Spatial Data Analysis with GIS	◖ **3102-440** (Kandeler) Environmental Pollution and Soil Organisms	◖ **3101-580** (Rennert) Bodenschutz, Bodenbewertung, -sanierung	● **3101-430** (Rennert) Integr. bodenw. Projekt f. Fortgeschr. / Interdiscipl. Advanced Soil Science Project (Engl.+ Ger.)	◖ **3102-420** (Kandeler) Bodenwissenschaftliches Experiment/Project in Soil Sciences (Engl.+ Ger.)
	◖ **3102-450** (Kandeler) Molecular Soil Ecology	◖ **3101-560** (Rennert) Soils of the World	◖ **3101-570** (Herrmann) Boden- und veg.kundl. Geländeübung / Field Course Soils + Vegetation		
	◖ **3201-620** (Schmieder) Vegetation and Soils of Central Europe				
M.Sc. Agrarwissenschaften Tierwissenschaften	◖ **4502-430** (Mosenthin) Methoden zur Analytik u. Qualitätsbeurt. von Futtermitteln	◖ **4702-510** (Bennewitz) Zuchtplanung und Zuchtpraxis i. d. …	◖ **4701-480** (Stefanski) Verhaltensphysiologie und Immunobiologie	◖ **4501-450** (Rodehutscord.) Spezielle Ernährung Wiederkäuer	
	◖ **4701-490** (Stefanski) Verhaltensbiologie	○ **4601-410** (N.N.) Angew. Anatomie und klinische U.-methoden	○ **4602-450** (Hölzle) Food Safety a. Drinking Water Quality related to Zoonoses in the T+S	◖ **4602-490** (Hölzle) Spezielle Tierhygiene	
		○ **4602-500** (Beyer) Biologische Sicherheit und Gentechnikrecht	○ **4802-450** (Dickhöfer) Quant. Meth. in Anim. Nutrition +Veget. Scienc.	○ **4801-420** (Valle Zárate) Promotion of Livestock in Trop. Environments	
		◖ **7301-410** (Rosenkranz) Bienen			
M.Sc. AgriTropics	● **3803-470** (Asch) Interdiscipl. Practical Science Traíning (**AgriTropics only!**)	○ **3802-420** (Sauerborn) Biodiversity, Plant and Animal Gen. Resources	○ **4802-450** (Dickhöfer) Quant. Meth. in Anim. Nutrition +Veget. Scienc.		
Animal		○ **4801-430** (Valle Zárate) Livestock Breeding Programmes	○ **4602-450** (Hölzle) Food Safety a. Drinking Water Quality related to Zoonoses in the T+S	○ **4801-420** (Valle Zárate) Promotion of Livestock in Trop. Environments	
Crop		○ **3801-430** (Cadisch) Integrated Agricultural Production Systems	○ **3803-450** (Asch) Crop Production Affecting the Hydrological Cycle	○ **3803-430** (Asch) Ecophysiology of Crops in the T+S	
			○ **3501-480** (Melchinger) Breed. of Trop., Ornament., and Veget. Plants		
Engineering		○ **4403-580** (Müller, J.) Water and Soil Management in Agric. Production	○ **4403-470** (Müller, J.) Renewable Energy for Rural Areas	○ **4403-550** (Müller, J.) Postharvest Technology of Food and Bio-Based Products	
Economics		*(evtl: Gender, Nutrition, and Right to Food?)*	○ **4901-430** (Zeller) Rural Development Policy and Institutions	○ **4303-480** (Lemke) Global Nutrition	
M.Sc. Crop Sciences (blocked) Plant Nutrition & Protection (N)	○ **2601-430** (Schaller) Entwicklungsbiologie der Pflanzen *(5 Plätze für CS)*	○ **4602-500** (Beyer) Biologische Sicherheit und Gentechnikrecht	○ **1101-430** (Kügler) Modelling and Simulation of Biochemical Reaction Networks *(5 Plätze für CS)*	○ **2202-400** (Mackenstedt) Pathogens, Parasites and their Hosts, Ecology, Molecular Interactions and Evolution	

Plant Nutrition & Protection (A)		○ **3801-430** (Cadisch) Integr. Agricultural Production Systems	○ **3803-450** (Asch) Crop Prod. Affecting the Hydrological Cycle	○ **3803-430** (Asch) Ecophysiology of Crops in the T+S	○ **3603-500** (Zebitz) Exercises in Biological Pest Control
M.Sc. EnviroFood	● **3103-450** (Streck) Spatial Data Analysis with GIS	◖ **3102-440** (Kandeler) Environmental Pollution and Soil Organisms	◖ **4403-470** (Müller, J.) Renewable Energy for Rural Areas	◖ **3103-460** (Streck) Environmental Science Project	
		◖ **3802-420** (Sauerborn) Biodiversity, Plant and Animal Gen. Resources	○ **4602-450** (Hölzle) Food Safety a. Drinking Water Quality related to Zoonoses in the T+S	◖ **4303-480** (Lemke) Global Nutrition	
		◖ **4403-580** (Müller, J.) Water and Soil Management in Agric. Production	○ **1401-490** (Biesalski) Food Security	◖ **4403-550** (Müller, J.) Postharvest Technology of Food and Bio-Based Products	
M.Sc. Landscape Ecology	◖ **3201-620** (Schmieder) Vegetat. and Soils of Central Europe	◖ **3201-590** (Schurr) Combining Ecological Modells and Data	◖ **3101-570** (Herrmann) Field Course Soils and Vegetation	● **3201-600** (Schurr) Intensive Course Landscape Ecology	
	◖ **3103-450** (Streck) Spatial Data Analysis with GIS	◖ **3101-560** (Rennert) Soils of the World	◖ **3803-450** (Asch) Crop Prod. Affecting the Hydrological Cycle		
		◖ **3802-420** (Sauerborn) Biodiversity, Plant and Animal Gen. Resources			
M.Sc. EnvEuro Environm. Impacts	● **3103-450** (Streck) Spatial Data Analysis with GIS	◖ **3802-420** (Sauerborn) Biodiversity, Plant and Animal Gen. Resources	◖ **3803-450** (Asch) Crop Production Affecting the Hydrological Cycle	◖ **3103-460** (Streck) Environmental Science Project	
		◖ **4403-580** (Müller, J.) Water and Soil Management in Agric. Production	◖ **3101-570** (Hermann) Field Course Soils and Vegetation		
Environm. Management	● **3103-450** (Streck) Spatial Data Analysis with GIS	◖ **3801-430** (Cadisch) Integrated Agricultural Production Systems	◖ **4403-470** (Müller, J.) Renewable Energy for Rural Areas	◖ **3103-460** (Streck) Environmental Science Project	
		◖ **3802-420** (Sauerborn) Biodiversity, Plant and Animal Gen. Resources			
		◖ **4403-580** (Müller, J.) Water and Soil Management in Agric. Production			
Soil Resources and Land Use	● **3103-450** (Streck) Spatial Data Analysis with GIS	◖ **3101-560** (Rennert) Soils of the World	◖ **3803-450** (Asch) Crop Production Affecting the Hydrological Cycle	◖ **3103-460** (Streck) Environmental Science Project	◖ **3301-480** (Müller, T.) Fertilisation and Soil Fertility Management in the T. and S.
		◖ **3102-440** (Kandeler) Environmental Pollution and Soil Organisms	◖ **3101-570** (Herrmann) Field Course Soils and Vegetation		○ **3102-420** (Kandeler) Bodenwissenschaftl. Experiment/Project in Soil Sciences (Engl.+ Ger.)
		◖ **4403-580** (Müller, J.) Water and Soil Management in Agric. Production			
Climate Change	● **3103-450** (Streck) Spatial Data Analysis with GIS	◖ **3802-420** (Sauerborn) Biodiversity, Plant and Animal Gen. Resources	◖ **3803-450** (Asch) Crop Production Affecting the Hydrological Cycle	◖ **3103-460** (Streck) Environmental Science Project	
		◖ **4403-580** (Müller, J.) Water and Soil Management in Agric. Production	◖ **4403-470** (Müller, J.) Renewable Energy for Rural Areas	◖ **3803-430** (Asch) Ecophysiology of Crops in the T+S	
Ecosystems and Biodiversity	● **3103-450** (Streck) Spatial Data Analysis with GIS	◖ **3201-590** (Schurr) Combining Ecological Modells and Data	◖ **3101-570** (Herrmann) Field Course Soils and Vegetation	◖ **3103-460** (Streck) Environmental Science Project	
		◖ **3802-420** (Sauerborn) Biodiversity, Plant and Animal Gen. Resources		◖ **3201-600** (Schurr) Intensive Course Landscape Ecology	

Explanation of Module Code



day / time	Monday	Tuesday	Wednesday	Thursday	Friday
8 - 9					
9 – 10					
10 – 11					
11 – 12					
12 – 13					
13 – 14					
14 – 15					
15 – 16					
16 – 17					
17 – 18					

Lecture Periods

WS 14/15	**First day of un-blocked modules:**	(42. KW) Monday, 13.10.2014
	First day of blocked modules:	(42. KW) Monday, 13.10.2014
	Last day of un-blocked modules:	(6. KW) Saturday, 07.02.2015
	Last day of blocked modules:	(7. KW) Friday, 13.02.2015
SS 15	**First day of blocked modules:**	(16. KW) Monday, 13.04.2015
	First day of un-blocked modules:	(16. KW) Monday, 13.04.2015
	Last day of un-blocked modules:	(30. KW) Saturday,25.07.2015
	Last day of blocked modules:	(32. KW) Friday, 07.08.2015

Free of lectures: All Saints' Day: 01.11.2014, Christmas holidays: Mo 22.12.2014 – Tu 06.01.2015, Easter holidays: Fr 03.04. – Mo 06.04.2015, Labour Day: Fr 01.05.2015, Ascension Day: Tu 14.05.2015, Pentecost holidays: Mo 25.05.2015 – Sa 30.05.2015 (excursions might take place), Feast of Corpus Christi: Th 04.06.2015. The "Dies Academicus" (probably 03.07.2015) will be free of lectures too.

Examination periods in winter semester 2014/15

B.Sc. and M.Sc. period 1: calendar week 7 to 9
B.Sc. and M.Sc.: period 2: calendar week 14 to 15
Deadline for the registration for exams: is fixed by the examination office

Examination periods in summer semester 2015

B.Sc. and M.Sc. period 1: calendar week 31 to 33
B.Sc. and M.Sc.: period 2: calendar week 39 to 41
Deadline for the registration for exams: is fixed by the examination office

Questions concerning the examination regulations, the study and examination plan, withdrawal or transcripts of records are answered at the examination office and the exact dates of the module examinations are posted at the online notice-board of the examination office at: (**https://www.uni-hohenheim.de/pruefung.html?&L=1**).