UNIVERSITÄT HOHENHEIM

FAKULTÄT AGRARWISSENSCHAFTEN

Curriculum

Master of Science
Environmental Protection and Agricultural Food Production

September 2010

Preamble

This curriculum provides applicants and students as well as teaching and administrative staff with comprehensive information about the M.Sc. programme „Environmental Protection and Agricultural Food Production". It contains information about the course structure, summarises the most important exam regulations and admission requirements.

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 supplied without liability.

If in doubt, please refer to the coordinator of the programme (envirofood@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 are displayed in the Course Catalogue of the University of Hohenheim, available at the beginning of each semester at the local book store or online on the university's homepage: **www.uni-hohenheim.de**.

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The Master Programme *Environmental Protection and Agricultural Food Production (EnviroFood)*

Programme Objectives

The world's population increases by 80 million each year. Due to this continuous growth in population and changing living habits the demand for food increases as well. Producing these enormous amounts of food strains the world's natural resources to their limit. An increasing use of technical means of production reinforces this effect. Food production will be further intensified with the globalization of markets speeding up this process. One of this century's major challenges is to make this process as environmentally friendly, socially acceptable and economically effective, i.e. sustainable as possible. The concept of sustainability includes recycling of waste. In view of potential damage to the environment this has to be done with utmost care. Complex problems arise on the periphery of densely populated areas where competing forms of land use (settlement, recreation, recycling) have to be balanced.

EnviroFood is a transdisciplinary oriented degree course. Environmental systems analysis does not only have to consider scientific and technical but also socio-economic, political and administrative aspects. Our graduates will have acquired the necessary skills to analyse eco-systematic, economic, political and administrative interrelations beyond individual subject borders and develop integrative problem solutions. These skills will enable them to contribute to securing food quantity and quality by sustainably using natural resources and thus preventing damage to the environment.

Programme Design

EnviroFood is a two-year degree course with a workload of 80 SWS (weekly hours per semester). The first 3 semesters cover a total of 60 SWS (lectures and seminars). During the final semester students work on their Master thesis. Performance is examined through continuous assessment. Exams are marked according to the European Credit Transfer System (ECTS).

In total 15 modules have to be completed successfully (7 compulsory, 3 semi-elective and 5 elective modules).

	1. Semester	2. Semester	3. Semester	4. Semester
6 Credits	**4402-440** (Jungbluth) Agricultural Production and Residues/ or **1503-410** (N.N.) Food Technology and Residues	Semi-elective module	Elective module	**Master Thesis** (30 credits)
6 Credits	**3202-410** (Fangeier) Ecotoxicology and Environmental Analytics	**3103-440** (Streck) Spatial Data Analysis with GIS	Elective module	
6 Credits	**3103-440** (Streck) Matter Cycling in Agro-Ecosystems	Semi-elective module	Elective module	
6 Credits	**4602-460** (Böhm) Environmental Microbiology, Parasitology and Microbial Ecol.	**3103-460** (Streck) Environmental Science Project	Elective module	
6 Credits	**4201-440** (Grethe) Economics and Environmental Policy	Semi-elective module	Elective module	

Modules

Most modules are offered as blocked courses lasting three and a half weeks (B1 to B5 = winter semester, B6 – B10 = summer). Some are not blocked and thus last the full length of the semester. Blocked modules will usually take place Monday to Friday from 2 p.m. to 6 p.m. Non-blocked modules will usually be taught in the morning. This shall enable students to combine blocked and unblocked modules. (Because of the limited number of lecture rooms, this aim can unfortunately not always be kept.) While working out your personal time-table, please be aware of the following facts: the morning is assigned for the personal preparation of the blocked modules too and the block periods B4, B5 and B9, B10 will have a relevant overlapping with the first examination period of the unblocked modules!

The seven **compulsory modules** are:

Sem	Modules		Block	Exam	Professor
1a)	4402-440	Agricultural Production and Residues	B 1	oral	Jungbluth
1b)	1503-410	Food Technology and Residues	B1	written	N.N.
1	4201-440	Economics and Environmental Policy	(WS)	written	Grethe
1	3202-410	Ecotoxicology and Environmental Analytics	B 2	written	Fangmeier
1	3103-440	Matter Cycling in Agroecosystems	B 3	written	Streck
1	4602-460	Environmental Microbiology, Parasitology and Microbial Ecology	B 4	written	Böhm
2	3103-440	Spatial Data Analysis with GIS	B 7	written	Streck
2	3103-460	Environmental Science Project	B 9	oral + ICA	Streck

(WS) = Offered unblocked in each winter semester.
(SS) = Offered unblocked in each summer semester.
 ICA = In-course-assessment

For students with an academic background in food technology or nutrition sciences the module "Agricultural Production and Residues" is compulsory. Students with an academic background in agricultural or environmental sciences are obliged to take the module "Food Technology and Residues".

The module "Environmental Science Project" sets the frame for small groups of students (2-3) to organize themselves and work on a practical problem of environmental sciences. The aim is to overcome disciplinary boundaries.

Each module corresponds to a workload of 4 SWS (weekly contact hours per semester), which is 56 contact hours per module, and in addition at least the same time for preparation at home, summing up to a total workload of about 140-180 hours for one module. It may consist of different forms of teaching (e.g. seminar, lecture, practical, excursions).

Three **semi-elective modules** have to be selected from the catalogue of elective modules stated in the exam regulations (see listing below). Five **elective modules** can be chosen from the complete catalogue of the Faculty of Agriculture's master courses modules. These options allow students to create their own study profile according to their career plans. Students will be advised on which modules are suitable for their individual profiles. A selection form with detailed instructions will be distributed among the stu-

dents at the end of the first semester. At request, lectures/seminars offered in other degree courses (www.uni-hohenheim.de/modulkatalog) may be selected as well, provided they have a modular structure, are continuously assessed and fit into the study profile.

Catalogue of semi-elective modules:

Sem	Modules		Block	Exam	Professor
2	4303-470 430	Gender, Nutrition, and Right to Food ~~Gender and Food Studies~~	(SS)	written + ICA	Bellows
2	4303-480	Global Nutrition	(SS)	written	Bellows
2	3102-440	Environmental Pollution and Soil Organisms	B 06	oral +ICA	Kandeler
2	3802-420	Biodiversity, Plant and Animal Genetic Resources	B 08	written	Sauerborn
2	4403-550	Postharvest Technology of Food and Biobased Prod.	B 08	written	Müller
2	4403-470	Renewable Energy for Rural Areas	B 09	written	Müller
3	3202-430	Air Pollution and Air Pollution Control	B 01	written	Fangmeier
3	3202-420	Global Change Issues	B 04	oral	Fangmeier
3	3003-410	Food Safety and Quality Chains	B 05	oral +ICA	Schöne
3	3004-410	Inland Water Ecosystems	B 05	written	Tremp
3	1201-410	Remote Sensing	(WS)	written or oral	Wulfmeyer
3	4406-410	Waste Management and Waste Techniques	(WS)	written	Kranert
3	3802-410	Ecology and Agroecosystems	B 02	written	Sauerborn
3	4403-530	Natural Resource Management	B 03	written	Müller

(WS) = Offered unblocked in each winter semester.
(SS) = Offered unblocked in each summer semester.
ICA = In-course-assessment

Course Catalogue The Course Catalogue of University of Hohenheim is available at the beginning of each semester online at the university's homepage: **www.uni-hohenheim.de.** By the name of the courses of the modules (see page 10 and following pages), times and lecture rooms of all courses can be found inside the Course Catalogue of the University of Hohenheim, and a personal time-table can be worked out. Mind: several non-blocked modules within that catalogue consist of more than one course. All modules, their courses and responsible lecturers, course contents, and literature are described in the catalogue of course contents.

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

Credit Point System With each completed module the students earn 6 credits for the workload associated with each module. The M.Sc. programme has a requirement of 120 credits in total. The examination result is expressed in grade points. The highest score is 4.0. A score of 1.0 is required for passing.

Credits are multiplied with the grade points achieved to derive the number of credit points obtained. In order to calculate the grade point average, the total number of credits collected divides the total number of credit points obtained in all modules.

The credit point system used in the M.Sc. programme is fully compatible with the European Credit Transfer System, ECTS.

	Grade- points and grades		
	grades		*grade-points*
excellent performance	*very good*	A	4,0
		A-	3,7
performance considerably exceeding the above average standard	*good*	B+	3,3
		B	3,0
		B-	2,7
performance meeting the average standard	*medium*	C+	2,3
		C	2,0
		C-	1,7
performance meeting minimum criteria	*pass*	D+	1,3
		D	1,0
performance not meeting minimum criteria	*fail*	F	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 semester the candidate must have the study plan approved in which all chosen modules are mentioned. The study plan has to be signed by a mentor before it is handed in to the examination office. Exchanges of modules need to be approved by the responsible mentor. After examination a module cannot be dropped any more.

Examinations

Performance is examined through continuous assessment. Each module is examined upon completion. 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 compulsory modules offered in the first and second semester. The registration for elective modules will take place at the end of the first semester through filling in an official form. Withdrawal on the first trial of each module's examination is possible up to 7 days before the examination date. The examination will be postponed to the next possible examination period.

The claim for examination expires if:
- a minimum of six modules has not been passed by the end of the second semester at the latest
- an examination of the compulsory modules has not been passed by the end of the third semester at the latest
- an examination of the elective 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 (see: https://pruefungs amt.uni-hohenheim.de) are distributed by the examination office.

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

rofesstive examination performance is to be graded "fail" (F; 0 grade-points).

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 rofesssor 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 "Environmental Protection and Agricultural Food Production" within a fixed period of time by applying scientific methods. The exam consists of a written (thesis) and an oral (defense) part. 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. Students should work on a practical problem closely cooperating with companies or institutions outside the university.
	Thesis work includes a literature review, new and original data derived from field work, a period of writing-up and, finally, a presentation. This work can be carried out either at Hohenheim University or at one of the various partner universities.
	Important information concerning the topic of the master thesis: According to the examination regulations the candidate may choose a topic of a subject field of compulsory or elective modules, which he/she attended. The topic cannot be chosen of a subject field of an additional module.
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 5 or 6 of the new year. In the summer semester (SS) courses begin in week 14 or 15 and end in week 28 or 29. Blocked modules of the WS usually begin in week 42, those of the SS in week 13 or 14. In each semester for unblocked modules the lecture period is followed by an examination period of three weeks. This examination period of the unblocked modules usually corresponds with the last block period of each semester.
Teaching Staff & Mentoring	Most modules are organised and taught by professors of the University of Hohenheim, who have broad experience in international research. Students also benefit from Hohenheim's active links with academic partners worldwide. Guest speakers from partner universities as well as research, development and policy institutions cover additional topics, and thus enrich the curriculum with special fields of expertise.
	Mentors will advise students on designing a coherent individual study concept. 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 for the current study profiles:

- Crop Farming & Landscape Ecology
  Prof. Dr. Fangmeier, Institute of Landscape and Plant Ecology (320b)
- Soil, Air and Water
  Prof. Dr. Streck, Institute of Soil Science (310d)

- Livestock & Public Health
  Prof. Dr. Hölzle, Institute of Environmental and Animal Hygiene and Veterinary Medicine (460)
- Technology & Engineering
  Prof. Dr. Jungbluth, Institute of Agricultural Engineering (440)

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 Euro League 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.). This degree entitles the student to continuing with a Ph.D./doctoral programme if the total grade is above average.
Responsible Scientist	Prof. Dr. Thilo Streck Biogeographics
Professors in Charge of Compulsory Modules	Prof. Dr. Streck, Institute of Soil Science (310d) Prof. Dr. Fangmeier, Institute of Landscape and Plant Ecology (320b) Prof. Dr. Grethe, Institute of Agricultural Policy and Agricultural Markets (420a) Prof. Dr. Hölzle, Institute of Environmental and Animal Hygiene and Veterinary Medicine (460) Prof. Dr. Jungbluth, Institute of Agricultural Engineering (440) Prof. Dr.Becker, T., Institute for Agricultural Policy and Agricultural Markets (420) Prof. Dr. Kahlus, Food Process Engineering (150c)
Contact	**Programme Coordinator Environmental Protection and Agricultural Food Production** Katrin Winkler Centre for Agriculture in the Tropics and Subtropics (790) Universität Hohenheim 70593 Stuttgart, Germany Phone: +49 711 459 23305 Fax: +49 711 459 23315 e-mail: envirofood@uni-hohenheim.de http://www.uni-hohenheim.de/envirofood

In the following table all modules offered within the EnviroFood-Master and the corresponding courses are shown. The modules are sorted by module-code. (SWS = average hours per week per semester)

Module-Code	Name of Module	Sem.	Module obligation	Responsible Professor	Language	Module-Duration	Exam	LV-Code	Courses of the Module	Lecturer(s)	Type	SWS
1201-410	Remote Sensing	3	Semi-elective	Wulfmeyer	engl.	1 Sem.	written or oral	1201-412 1201-411	• Remote Sensing tutorials • Remote Sensing lectures	• Dr. rer. nat. Andreas Behrendt, Prof. Dr. Volker Wulfmeyer • Dr. rer. nat. Andreas Behrendt, Prof. Dr. Volker Wulfmeyer	• Exercise • Lecture	• 2 • 2
1503-410	Food Technology and Residues	1	Compulsory	Kohlus	engl.	3,5 Weeks (B01)	oral	1503-412 1503-411	• Production-Integrated Environmental Protection in the Food Production Industry • Treatment of Water, Wastewater and Waste in Food Technology	• N. N. • Dipl.-Ing. Peter Gschwind, N. N., Prof. Dr. Volker Wulfmeyer	• Lecture • Lecture	• 2 • 2
3003-410	Food Safety and Quality Chains	3	Semi-elective	Schöne	engl.	3,5 Weeks (B05)	oral with in course assessment	3003-411	• Food Safety and Quality Chains	• PD Dr. Friedrich Schöne	• Lecture	• 4
3004-410	Inland Water Ecosystems	3	Semi-elective	Tremp	engl.	3,5 Weeks (B05)	written	3004-411	• Inland Water Ecosystems	• PD Dr. Horst Tremp	• Lecture with Exercise	• 4
3102-440	Environmental Pollution and Soil Organisms	2	Semi-elective	Kandeler	engl.	3,5 Weeks (B06)	oral, in-course assessment	3102-443 3102-441 3102-442/3202-223	• Course on Methods in Soil Biology • Environmental Geomicrobiology • Methods in Soil Biology	• Prof. Dr. Ellen Kandeler, Dr. Christian Poll • Prof. Dr. Ellen Kandeler • Prof. Dr. Ellen Kandeler	• Exercise • Lecture • Lecture	• 1 • 2 • 1
3103-440	Matter Cycling in Agroecosystems	1	Compulsory	Streck	engl.	3,5 Weeks (B03)	written	3103-441	• Matter Cycling in Agroecosystems	• Prof. Dr. Thilo Streck	• Lecture with Exercise	• 4
3103-450	Spatial Data Analysis with GIS	2	Compulsory	Streck	engl.	3,5 Weeks	written	3103-451 3103-452	• Spatial Data Analysis with GIS	• Prof. Dr. Thilo Streck	• Lecture • Exercise	• 2 • 2

Module-Code	Name of Module	Sem.	Module obligation	Responsible Professor	Language	Module-Duration	Exam	LV-Code	Courses of the Module	Lecturer(s)	Type	SWS
						(B07)			▪ Working with Spatial Data Using Geographical Information Systems	▪ Prof. Dr. Thilo Streck		
3103-460	Environmental Science Project	2	Compulsory	Streck	engl.	3,5 Weeks (B09)	oral (70%) with in-course assessment (30%)	3103-461	▪ Environmental Science Project	▪ Prof. Dr. Thilo Streck	▪ Lecture with Seminar, Excursion and Labexercise	▪ 4
3202-410	Ecotoxicology and Environmental Analytics	1	Compulsory	Fangmeier	engl.	3,5 Weeks (B02)	written	3202-411	▪ Ecotoxicology and Environmental Analytics	▪ Prof. Dr. Andreas Fangmeier	▪ Lecture with Seminar	▪ 4
3202-420	Global Change Issues	3	Semi-elective	Fangmeier	engl.	3,5 Weeks (B04)	written	3202-423 3202-421 3202-422	▪ Experiments on Global Change ▪ Introduction to Global Change ▪ Seminar on Global Change	▪ Prof. Dr. Andreas Fangmeier, Dr. Jürgen Franzaring, Dr. Petra Högy ▪ Prof. Dr. Andreas Fangmeier, Dr. Jürgen Franzaring, Dr. Petra Högy, PD Dr. Andreas Klumpp ▪ Prof. Dr. Andreas Fangmeier, Dr. Jürgen Franzaring, Dr. Petra Högy	▪ Lab ▪ Lecture ▪ Seminar	▪ 1 ▪ 2 ▪ 1
3202-430	Air Pollution and Air Pollution Control	3	Semi-elective	Fangmeier	engl.	3,5 Weeks (B01)	written	3202-431 3202-432 3202-433	▪ Air Pollutants ▪ Laboratory Course on Selected Air Pollutants ▪ Seminar on Air Pollution and Air Pollution Control	▪ Prof. Dr. Andreas Fangmeier ▪ Prof. Dr. Andreas Fangmeier ▪ Prof. Dr. Andreas Fangmeier	▪ Lecture ▪ Exercise ▪ Seminar	▪ 2 ▪ 1 ▪ 1
3802-410	Ecology and Agroecosystems	3	Semi-elective	Sauerborn	engl.	3,5 Weeks (B02)	written	3802-411	▪ Ecology and Agroecosystems	▪ Prof. Dr. Reinhard Böcker, PD Dr. Konrad Martin, Prof. Dr. Joachim	▪ Lecture with Seminar and Excursion	▪ 4

Module-Code	Name of Module	Sem.	Module obligation	Responsible Professor	Language	Module-Duration	Exam	LV-Code	Courses of the Module	Lecturer(s)	Type	SWS
										Sauerborn		
3802-420	Biodiversity, Plant and Animal Genetic Resources	2	Semi-elective	Sauerborn	engl.	3,5 Weeks (B08)	written	3802-421	▪ Biodiversity, Plant, and Animal Genetic Resources	▪ PD Dr. Konrad Martin, Prof. Dr. Joachim Sauerborn, Prof. Dr. Karl Schmid, Prof. Dr. Anne Valle Zárate	▪ Lecture with Seminar, Excursion and Labexercise	▪ 4
4201-440	Economics and Environmental Policy	1	Compulsory	Grethe	engl.	1 Sem.	written	4201-441 4201-442	▪ Basic Microeconomics ▪ Environmental Policy	▪ Prof. Dr. Harald Grethe ▪ Prof. Dr. Christian Lippert	▪ Lecture ▪ Lecture	▪ 2 ▪ 2
4303-470	Gender, Nutrition, and Right to Food	2	Semi-elective	Bellows	engl.	1 Sem.	written (essay 70%) with in-course assessment (presentation 30%)	4303-471	▪ Gender, Nutrition, and Right to Food	▪ Prof. Dr. Anne Camilla Bellows	▪ Seminar	▪ 4
4303-480	Global Nutrition (vorher: International Nutrition 4303-450)	2	Semi-elective	Bellows	engl.	1 Sem.	written	4303-481	▪ Global Nutrition (formerly: International Nutrition:4303-451)	▪ Prof. Dr. Anne Camilla Bellows, Prof. Dr. Hans Konrad Biesalski, Dr. Veronika Scherbaum	▪ Lecture	▪ 4
4402-440	Agricultural Production and Residues	1	Compulsory	Jungbluth	engl.	3,5 Weeks (B01)	oral	4402-443 4402-441 4402-442 4402-444	▪ Basics of Animal Nutrition ▪ Basics of Crop Production Systems ▪ Basics of Mechanization in Crop Production ▪ Livestock Production Systems	▪ Prof. Dr. Rainer Mosenthin ▪ Prof. Dr. Wilhelm Claupein, Prof. Dr. Joachim Sauerborn ▪ Prof. Dr. Karlheinz Köller ▪ Prof. Dr. Werner Bessei, Prof. Dr. Thomas Jungbluth	▪ Lecture with Excursion ▪ Lecture with Excursion ▪ Lecture with Excursion ▪ Lecture with Excursion	▪ 1 ▪ 1 ▪ 1 ▪ 1
4403-470	Renewable Energy for Rural Areas	2	Semi-elective	Müller	engl.	3,5 Weeks	written	4403-471	▪ Renewable Energy for Rural Areas	▪ Prof. Dr. Joachim Müller, Prof. Dr.	▪ Lecture with Ex-	▪ 4

Module-Code	Name of Module	Sem.	Module obligation	Responsible Professor	Language	Module-Duration	Exam	LV-Code	Courses of the Module	Lecturer(s)	Type	SWS
						(B09)				Manfred Zeller	cursion and Lab	
4403-530	Natural Resource Management (vorher: Water and Soil as Resources 4403-490)	3	Semi-elective	Müller	engl.	3,5 Weeks (B03)	written	**4403-531**	▪ Natural Resource Management (Water and Soil as Resources: 4403-491)	▪ Prof. Dr. Joachim Müller, Prof. Dr. Karl Stahr	▪ Lecture with Exercise and Seminar	▪ 4
4403-550	Post-Harvest Technology of Food and Bio-Based Products (vorher: Postharvest Technology and Food Quality 4403-460)	2	Semi-elective	Müller	engl.	3,5 Weeks (B08)	written	**4403-551**	▪ Post-Harvest Technology of Food and Bio-Based Products (formerly: Postharvest Technology and Food Quality 4403-461)	▪ Prof. Dr. Reinhold Carle, Prof. Dr. Joachim Müller, Dr. Sybille Neidhart, Prof. Dr. Claus Zebitz	▪ Lecture with Excursion and Lab	▪ 4
4406-410	Waste Management and Waste Techniques	3	Semi-elective	Kranert	engl.	1 Sem.	written	**4406-411**	▪ Waste Management and Waste Techniques	▪ Herr Detlef Clauß, Herr Matthias Rapf	▪ Lecture	▪ 4
4602-460	Environmental Microbiology, Parasitology and Microbial Ecology	1	Compulsory	Hölzle	engl.	3,5 Weeks (B04)	written	**4602-461**	▪ Environmental Microbiology, Parasitology and Microbial Ecology	▪ Herr Engesser, Prof. Dr. Ludwig Hölzle, Prof. Dr. Ellen Kandeler, Prof. Dr. Andreas Kuhn, Prof. Dr. Ute Mackenstedt	▪ Lecture	▪ 4

Block Periods 2010/2011

	Block	Period
Winter Semester	1	18.10. – 10.11.2010
	2	11.11. – 03.12.2010
	3	06.12. – 12.01.2011
	4	13.01. – 07.02.2011
	5	08.02. – 02.03.2011
Summer Semester	6	04.04. – 28.04.2011
	7	29.04. – 23.05.2011
	8	24.05. – 17.06.2011
	9	20.06. – 13.07.2011
	10	14.07. – 05.08.2011

Important Advice for the Personal Time-Table: Blocked modules will usually take place Monday to Friday from 2 p.m. to 6 p.m. Non-blocked modules will usually be taught in the morning. This shall enable students to combine blocked and unblocked modules. (Because of the limited number of lecture rooms, this aim can unfortunately not always be kept.) While working out your personal time-table, please be aware of the following facts: the morning is assigned for the personal preparation of the blocked modules too and the block periods B4, B5 and B9, B10 will have a relevant overlapping with the first examination period of the un-blocked modules!

Please register 3 weeks before the respective block at the responsible institute!

Blocked Modules Winter Semester 2010/11

● = Compulsory ◖ = Semi-elective ○ = Elective

Period / Study Course	1 (17 days) 18.10. - 10.11.2010	2 (17 days) 11.11. - 03.12.2010	3 (17 days) 06.12. - 12.01.2011	4 (17 days) 13.01. - 07.02.2011	5 (17 days) 08.02. - 02.03.2011	by Arrangement
M. Sc. AgEcon	● 4904-460 (Berger) Farm System Modelling · ◖ 4901-420 (Zeller) Poverty and Development Strategies		● 4902-410 (Brockmeier) Applied Econometrics · ◖ 4301-420 (Hoffmann) Organisational Development	◖ 4301-410 (Hoffmann) Knowledge and Innovation Management · ◖ 4904-430 (Berger) Land Use Economics	◖ 4201-420 (Grethe) Advanced Policy Analysis Modelling	
M. Sc. AgriTropics	● 4901-420 (Zeller) Poverty and Development Strategies · ○ 4301-430 (Hoffmann) Rural Communication and Extension · ○ 3101-410 (Stahr) Tropical Soils and Land Evaluation	● 3802-410 (Sauerborn) Ecology and Agroecosystems · ○ 4904-450 (Berger) Farm and Project Evaluation · ○ 4802-410 (Focken) Intensive Aquacult. Systems · ○ 3803-440 (Asch) Signalling in Plants under Stress · ⊖ 4801-420 (Valle Zárate) Promotion of Livestock …	● 4403-530 (Müller, J.) Natural Resource Management · ○ 4901-470 (Zeller) Quantitative Methods in Economics · ◖ 3301-430 (Müller, T.) Plant Nutrition and Soil Chemistry · ○ 4801-430 (Valle Zárate) Livestock Breeding Programmes …	● 3801-420 (Cadisch) Crop Production Systems · ○ 3803-450 (Asch) Crop Production Affecting the Hydrological Cycle · ○ 3501-440 (Melchinger) Plant Breeding and Seed Science in the T+S	● 4801-450 (Valle Zárate) Livestock Production Systems … · ○ 3405-410 (Zikeli) Organic Farming in the Tropics and Subtropics · ○ 4802-420 (N.N.) Phys. and Ecol. Aspects of Animal Nutrition T+S	⊖ 4303-490 (Bellows) Ethics of Food and Nutrition Security (unblocked!)
M. Sc. Crop Sciences		◖ 3803-440 (Asch) Signalling in Plants under Stress	⊖ 3301-450 (Müller, T.) Fertilisation and Appl. Soil Chemistr. unblocked!	◖ 3501-460 (Melching.) Planning. of Breed. Prog. (or after B5) →		◖ 3301-460 (Müller, T.) Exercises in Plant Nutrition (after B5)
M. Sc. EnviroFood	VB● 4402-440 (Jungbluth) Agricultural Production and Residues · VB● 1503-410 (Kohlus) Food Technology and Residues · ◖ 3202-430 (Fangmeier) Air Pollution and Air Pollution Control	● 3202-410 (Fangmeier) Ecotoxicology and Environmental Analytics	● 3103-440 (Streck) Matter Cycling in Agro-Ecosystems · ◖ 4303-450 (Bellows) International Nutrition unblocked! · ◖ 4403-530 (Müller, J.) Natural Resource Management	● 4602-460 (Böhm) Environmental Microbiology, Parasitology … · ◖ 3202-420 (Fangmeier) Global Change Issues	◖ 3004-410 (Tremp) Inland Water Ecosystems · ◖ 3003-410 (Schöne) Food Safety and Quality Chains (February 1 -11th, 6 hours per day)	◖ 3301-460 (Müller, T.) Exercises in Plant Nutrition (after B5)
M. Sc. EnvEuro (first year and elective modules of second year)	○ 4402-440 (Jungbluth) Agricultural Production and Residues · ○ 3202-430 (Fangmeier) Air Pollution and Air Pollution Control · ○ 4904-460 (Berger) Farm System Modelling · ○ 4901-420 (Zeller) Poverty and Dev. Strategies · ○ 3101-410 (Stahr) Trop. Soil and Land Evaluation	○ 3202-410 (Fangmeier) Ecotoxicology and Environmental Analytics	● 3103-440 (Streck) Matter Cycling in Agro-Ecosystems · ⊖ 3301-450 (Müller, T.) Fertilisation and Appl. Soil Chem. unblocked! · ○ 4403-530 (Müller, J.) Nat. Resource Managem.	◖ 3803-450 (Asch) Crop Production Affecting the Hydrological Cycle · ○ 4602-460 (Hölzle) Environmental Microbiology, Parasitology … · ◖ 3202-420 (Fangmeier) Global Change Issues · ◖ 4904-430 (Berger) Land Use Economics	◖ 3004-410 (Tremp) Inland Water Ecosystems	

Blocked Modules Summer Semester 2011

● = Compulsory ◖ = Semi-elective ○ = Elective

Period / Study Course	6 (17 days) 04.04. - 28.04.2011	7 (17 days) 29.04. - 23.05.2011	8 (17 days) 24.05. - 17.06.2011	9 (17 days) 20.06. - 13.07.2011	10 (17 days) 14.07. - 05.08.2011	by Arrangement
M. Sc. AgEcon		● 4101-410 (Dabbert) Environmental and Resource Economics	● 4201-410 (Grethe) Agricultural and Food Policy	◖ 4902-420 (Brockmeier) International Food and Agricultural Trade		
M. Sc. AgriTropics	● 3803-470 (Asch) Interdisciplinary Practical Science Traíning ● 3802-410 (Sauerborn) Ecology and Agroecosystems (B2!)	○ 4901-430 (Zeller) Rural Development Policy and Institutions ○ 3801-430 (Cadisch) Integrated Agricultural Production Systems ○ 4801-410 (Valle Zárate) Genetic Resources and Animal Husbandry Systems	○ 4201-410 (Grethe) Agricultural and Food Policy ○ 3802-420 (Sauerborn) Biodiversity, Plant and Animal Gen. Resources ○ 4403-550 (Müller, J.) Postharvest Technology of Food and Bio-Based Prod. ○ 4801-420 (Valle Zárate) Promotion of Livestock ...	◖ 4902-420 (Brockmeier) International Food and Agricultural Trade ○ 4403-470 (Müller, J.) Renewable Energy f. Rural Areas ○ 4802-430 (Focken) Integration of Aquacult. in Agricult. Farm. Systems	○ 4902-430 (Brockmeier) Food and Nutrition Security ○ 3803-430 (Asch) Ecophysiology of Crops in the T+S ○ 4602-450 (Hölzle) Food Safety a. Drinking Water Quality related to Zoonoses in the T+S	
M. Sc. Crop Sciences	◖ 3602-460 (Gerhards) Information Technologies.. ○ 4404-410 (Köller) Precision Farming					
M. Sc. EnviroFood	◖ 3102-440 (Kandeler) Environmental Pollution and Soil Organisms ◖ 3802-410 (Sauerborn) Ecology and Agroecosystems	● 3103-450 (Streck) Spatial Data Analysis with GIS	◖ 3802-420 (Sauerborn) Biodiversity, Plant and Animal Gen. Resources ◖ 4403-550 (Müller, J.) Postharvest Technology of Food & Bio-Based Prod.	● 3103-460 (Streck) Environmental Science Project ◖ 4403-470 (Müller, J.) Renewable Energy for Rural Areas		
M. Sc. EnvEuro (first year)	○ 3102-440 (Kandeler) Environmental Pollution and Soil Organisms ○ 3802-410 (Sauerborn) Ecology and Agroecosystems	◖ 3103-450 (Streck) Spatial Data Analysis with GIS	◖ 3802-420 (Sauerborn) Biodiversity, Plant and Animal Gen. Resources ◖ 4201-410 (Grethe) Agricultural and Food Policy	◖ 3103-460 (Streck) Environmental Science Project ○ 4403-470 (Müller, J.) Renewable Energy for Rural Areas		
M. Sc. OrganicFood					● 4801-460 (Valle Zárate) Organic Livestock Farming and Products	
M. Sc. Saiwam (Hohenheim)	● 3101-520 (Stahr) Interdisciplinary Study Project	● 3103-450 (Streck) Spatial Data Analys. with GIS ● 4901-430 (Zeller) Rural Dev. Policy and Instit.		● 4802-430 (Focken) Integration of Aquaculture in Agricult. Farming Systems		
M. Sc. Saiwam (Chiang Mai) — Introduction	● 3101-510 (Stahr)	● 4901-460 (Zeller)	● 3703-420 (Wünsche)	● 4801-470 (Valle Zaraté)	● 4403-510 (Müller, J.)	

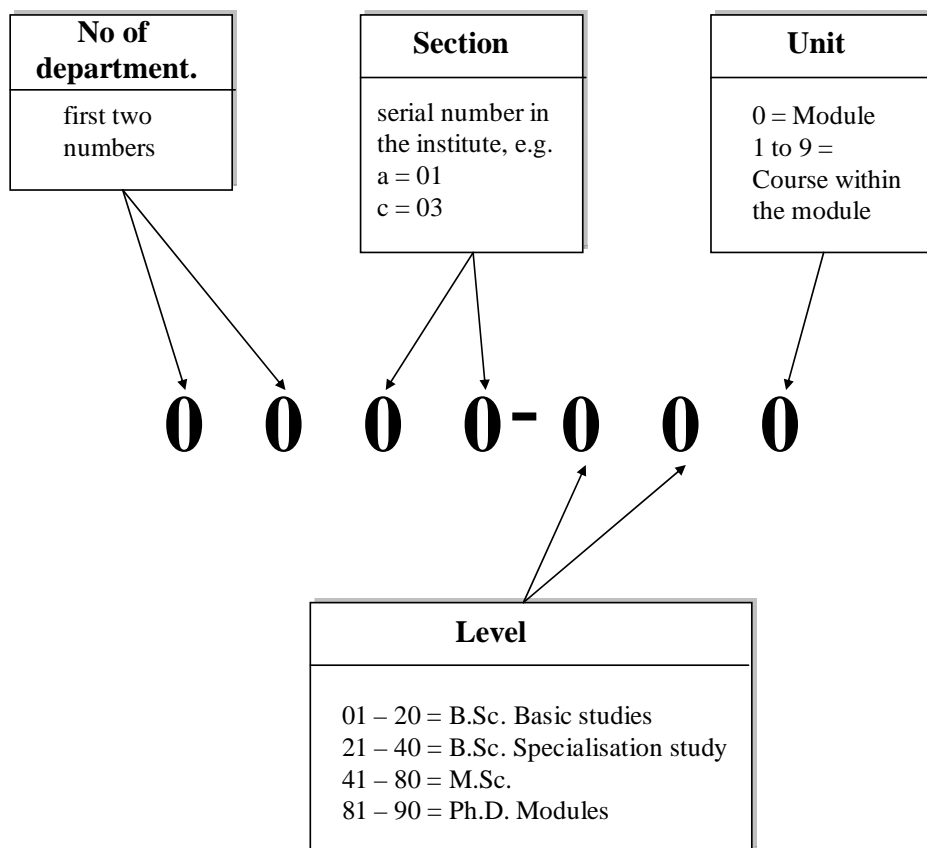# Unblocked Modules taught in English at the Faculty of Agricultural Sciences

● = Compulsory   ◖ = Semi-elective   ○ = Elective

AgEcon	Agri-Tropics	Crop Sciences	EnvEuro	Enviro-Food	Organic-Food	Unblocked Modules in Winter Term (October - February)
○	○	○	◖	◖	○	**1201-410** (Wulfmeyer) Remote Sensing
-	-	-	●	-	-	**3005-410** (Henriksen) Environmental Management in Europe *(for EnvEuro only!)*
○	○	○		○	○	**3101-450** (Stahr) Major Pedological Field Trip (English + German)
○	○	○	○	○	○	**3102-420** (Kandeler) Project in Soil Sciences (English + German)
○	○	○	○	○	○	**3102-450** (Kandeler) Molecular Soil Ecology *(will not be offered in WS 10/11!)*
○	○	○		○	○	**3301-440** (Müller, T.) Soil Fertility and Fertilisation in Organic Farming
○	○	○	○	○	○	**3301-450** (Müller, T.) Fertilisation and Appl. Soil Chemistry in the T+S
○	○	◖		○	○	**3302-450** (Neumann) Plant Symbioses for Nutrient Acquisition
○	○	◖		○	○	**3302-460** (N.N.) Plant Quality
○	○	●		○	○	**3401-470** (Claupein) Crop Physiology
○	●	○	●	○	○	**3402-420** (Piepho) Quantitative Methods in Biosciences
○	○	○		○	○	**3405-450** (Zikeli) Problems and Perspectives of Organic Farming
○	○	○		○	●	**3405-460** (Zikeli) Processing and Quality of Organic Food
○	○	○		○	●	**3405-470 (**Zikeli) Organic Food Systems and Concepts
○	○	◖		○	○	**3501-470** (Melchinger) Selection Theory
	●					**3502-440** (Schmid) Methods of Scientific Working for Crop Sciences
○	○	◖		○	○	**3502-450** (Schmid) Population and Quantitative Genetics
○	○	◖		○	○	**3504-430** (Kruse) Seed Research
○	○	◖		○	○	**3601-450** (Vögele) Phytopathology *(moved to WS!!!)*
○	○	◖		○	○	**3602-450** (Gerhards) Molecular Aspects of Plant Protection
○	○	◖		○	○	**3603-480** (Zebitz) Entomology
○	○	○		○	●	**4101-430** (Dabbert) Socioeconomics of Organic Farming
○	○	○	◖	●	○	**4201-440** (Grethe) Economics and Environmental Policy
○	○	○		○	●	**4303-440** (Bellows) Social Conditions of Organic and Sustainable Agriculture
○	○	○	○	○	○	**4303-490** (Bellows) Ethics of Food and Nutrition Security
○	●	○		○	○	**4403-480** (Asch) Interdisciplinary Case Study *(enrolment before WS 10/11)*
○	○	○	◖	◖	○	**4406-410** (Kranert) Waste Management and Waste Techniques
◖	○	○		○	○	**4904-410** (Berger) Agricultural Economics Seminar

AgEcon	Agri-Tropics	Crop Sciences	EnvEuro	Enviro-Food	Organic-Food	Unblocked Modules in Summer Term (April - July)
-	-	-	◖	-	-	**3005-420** (Henriksen) Climate Change Impacts, Adaptation a. Mitigation **(EnvEuro !)**
○	○	○	○	○	○	**3101-430** (Stahr) Interdisciplinary Advanced Soil Science Project (*English + German*)
○	○	○	○	○	○	**3101-440** (Stahr) Soil Genesis, Classification and Geography (*English + German*)
○	○	○	○	○	○	**3101-450** (Stahr) Major Pedological Field Trip (*English + German*)
○	○	○	◖	○	○	**3101-460** (Stahr) Mapping Course: Soils and Vegetation (*overlapping B7 and B8!*)
○	○	○	○	○	○	**3102-420** (Kandeler) Project in Soil Sciences (*English + German*)
⊖	⊖	⊖		⊖	⊖	~~**3201-410** (Böcker) Field Course in Site Ecology (Meteorology, Soil Ecology, Vegetation Ecology) with Seminar~~ (*English + German*)
○	○	○	◖	○	○	**3401-450** (Claupein) Conservation Agriculture
○	○	○		○	●	**3401-460** (Claupein) Organic Plant Production
○	○	●		○	○	**3402-430** (Piepho) Bioinformatics
○	○	○		○	●	**3405-490** (Zikeli) ~~Organic Food Chain~~ Project in Organic Agricult. and Food Systems
○	○	◖		○	○	**3501-450** (Melchinger) Breeding Methodology
⊖	⊖	◖		⊖	⊖	~~**3602-460** (Gerhards) Information Technologies and Expert Systems~~ .. (blocked B6)
○	○	○		○	○	**3603-420** (Zebitz) Crop Protection in Organic Farming
○	○	◖		○	○	**3603-470** (Zebitz) Ecology of Insects *(moved to SS!!!)*
○	○	◖		○	○	**3703-430** (Wünsche) Crop – Environment Interactions
-	●	-	-	-	-	**4903-460** (Birner) Methods in Interdisciplinary Collaboration *(for AgriTropics only!)*
●	○	○		○	○	**4202-420** (Becker. T.) Microeconomics
○	○	○		○	●	**4202-440** (Becker. T) Markets and Marketing of Organic Food
◖	○	○		◖	○	**4303-470** (Bellows) Gender, Nutrition, and Right to Food
○	○	○		◖	○	**4303-480** (Bellows) Global Nutrition

Explanation of Module Code

No of department.
first two numbers

Section
serial number in the institute, e.g. a = 01 c = 03

Unit
0 = Module 1 to 9 = Course within the module

$$0 \ 0 \ 0 \ 0 - 0 \ 0 \ 0$$

Level
01 – 20 = B.Sc. Basic studies 21 – 40 = B.Sc. Specialisation study 41 – 80 = M.Sc. 81 – 90 = Ph.D. Modules

Day Hour	Monday	Thuesday	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 10/11	**First day:**	(42. KW) Monday, 18.10.2010
	Last day of un-blocked modules:	(5. KW) Saturday, 05.02.2011
	End of Block B5	Wednesday, 02.03.2011
SS 11	**Start of Block B6**	Monday, 04.04.2011
	First day of un-blocked modules:	(14. KW) Monday, 04.04.2011
	Last day of un-blocked modules:	(28. KW) Saturday,16.07.2011
	End of Block B10	Friday, 05.08.2011

Christmas holidays 2010/11: 27.12.2010 – 08.01.2011 (blocks: 24.12. – 08.01.)
Easter holidays 2011: 22. – 25.04.2011
Pentecost holidays 2011: 14.06.2011 –18.06.2011 (except excursions+block 8+9)
The "Dies Academicus" (date not yet known!) will be free of lectures too!

Examination periods in winter semester 2010/11

B.Sc. and M.Sc. period 1:   calendar week 6 to 8
B.Sc. and M.Sc.: period 2:   calendar week 11 to 13
Deadline for the registration for exams: see notice-board of examination office

Examination periods in summer semester 2011

B.Sc. and M.Sc. period 1:   calendar week 29 to 31
B.Sc. and M.Sc.: period 2:   calendar week 40 to 41
Deadline for the registration for exams: see notice-board of examination office

A registration form is available at 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**).