UNIVERSITY OF HOHENHEIM

Curriculum

October 2020

# Crop Sciences

## Master of Science

**Studying in the winter semester 2020/21 in times of Covid-19:**
Presence on campus is not mandatory, but recommended! Teaching will be offered online to a large extend, but most modules also contain optional interactive components. Subscribe for the ILIAS courses for detailed information!

**www.uni-hohenheim.de/cropsciences**

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## Preamble

This curriculum provides applicants and students as well as teaching and administrative staff with information about the M.Sc. program “Crop Sciences”. It contains information on the program structure and summarizes the most important examination (issued 12 August February 2019, including all changes until 15 July 2020).

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 included in printed materials with a delay. For this reason, all information is supplied without liability.

If in doubt, please contact the coordinator of the program (cropsciences@uni-hohenheim.de) to obtain up-to-date information. For up-to-date module descriptions please refer to the website at uni-hohenheim.de/en/module-catalogue. 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: **uni-hohenheim.de.**

## Table of Contents

## The Master's Program „Crop Sciences"

***Program Objectives***

The goal of crop sciences is to develop crops and cropping systems with the highest possible efficiency in converting light and supplemental resources 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.

***Program Design***

The two-year M.Sc. program "Crop Sciences" comprises four semesters, during which thematic modules and the Master's 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 program has an extent of 120 ECTS credits and is composed of 4 semesters each with 30 ECTS credits. The language of instruction is English and the program can be started in October (winter semester) each year.

***Modules***

Most modules last the full length of the semester and have a value of 6 ECTS credits. 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. These modules correspond to 7,5 ECTS credits.

Each module of 6 credits corresponds to a workload of 4 SWS (weekly contact hours per semester), which is 56 con-tact hours per module. Each module of 7.5 credits corresponds to a work-load 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 180 hours for one module of 6 credits and 225 hours for one module of 7.5 credits. Each module may consist of different forms of teaching (e.g. seminar, lecture, practical course, excursions). See also the explanation of the module codes on page 15.

***Module Descriptions***

For the contents of all modules see: **uni-hohenheim.de/en/module-catalogue**.

***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 modules listed in the HohCampus Study Planner. A tool to compose an individual timetable is available, too.

***Structure of the major "Plant Breeding and Seed Science"***

| | 1st Semester | 2nd Semester | 3rd Semester | 4th 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 Programs** | **Master's 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 Cr. 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 | Würschum |
| 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 | Würschum |
| 3 | 3501-460 | **Planning of Breeding Programs** | 1 Semester | 6 | Würschum |

The **elective modules** can be chosen from the list below or from the modules of other Master's programs offered by the Faculty of Agricultural Sciences at the University of Hohenheim. On request to the examination board and with the approval of an academic counsellor or the program coordinator, modules can be chosen from other programs of the University of Hohenheim or other universities. With compulsory and elective modules together, at least 90 credits have to be reached.

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 graded)(see ILIAS)* | Not defined | 1 - 7,5 | Müller, T. |
| 1 | 3408-440 | Physiology and Biochemistry of Crops | 1 Semester (in the morning) | 6 | Ludewig |
| 1 | 3603-480 | Entomology | 1 Semester | 6 | Petschenka |
| 1/3 | 3402-420 | Quantitative Methods in Biosciences | 1 Semester | 6 | Piepho |
| 1 | 3504-460 | Seed Testing * | 1 Semester | 6 | Kruse |
| 2 | 3502-470 | Plant Genetic Resources | First half of semester | 6 | Schmid |
| 2 | 3504-450 | Saatguttechnologie | 1 Semester | 6 | Kruse |
| 3 | 3402-460 | Advanced Statistical Methods for Metric and Categorical Data II | 1 Semester | 6 | Piepho |
| 3 | 3411-420 | From Genes to Transgenic Plants and Edited Genomes | 1 Semester (in the morning) | 6 | Schmöckel |
| 3 | 4302-420 | Ethical Reflection on Food and Agriculture * | 1 Semester | 6 | Bieling |

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

| Sem | Code | Name of Module | Duration | Credits | Professor |
|---|---|---|---|---|---|
| 1 | 1301-410 | Spring School "Extreme Environments"* | blocked in Febr.-Mar. | 7.5 | Fox |
| 2 | 4605-500 | Biologische Sicherheit und Gentechnikrecht | Block 2, SS | 7.5 | Beyer |
| 2 | 3501-480 | Breeding of Tropical, Ornament., and Vegetable Plants | Block 3, SS | 7.5 | Würschum |

* Limited number of participants. Please register for participation in ILIAS

***Structure of the major "Plant Nutrition and Protection"***

| | 1st Semester | 2nd Semester | 3rd Semester | 4th Semester |
|---|---|---|---|---|
| 6 Credits | 3502-440 **Methods of Scientific Working** (for Crop Sciences) | Elective module | Elective module | **Master Thesis** (30 credits) |
| 6 Credits | 3408-500 **Methods in Molecular Biology and Biotechnology** | Elective module | Elective module | |
| 6 Credits | | Elective module | Elective module | |
| 6 Credits | 3408-440 **Physiology and Biochemistry of Crops** | Elective module | Elective module | |
| 6 Credits | 3411-420 **From Genes to Transgenic Plants a. Edited Genomes** | Elective module | Elective module | |

Instead of choosing five 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 – codes starting with "1" or "2" - requires the approval of an academic counsellor or the coordinator and a request to the examination board. Most modules have a strictly limited number of participants; access is not guaranteed.

***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 Science | 1 Semester (in the morning) | 6 | Schmid |
| 1 | 3408-440 | **Physiology and Biochemistry of Crops** | 1 Semester (in the morning) | 6 | Ludewig |
| 1 | 3411-420 | **From Genes to Transgenic Plants and Edited Genomes** | 1 Semester (in the morning) | 6 | Schmöckel |
| 1 | 3408-500 | **Methods in Molecular Biology and Biotechnology** | 1 Semester (in the afternoon) | 12 | Ludewig |

The **elective modules** can be chosen from the list below or from the modules of other Master's programs offered by the Faculty of Agricultural Sciences at the University of Hohenheim. On request to the examination board and with the approval of an academic counsellor or the program coordinator, modules can be chosen from other programs of the University of Hohenheim or other universities. With compulsory and elective modules together, at least 90 credits have to be reached.

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 graded)(see ILIAS)* | open | 1 – 7.5 | Kruse, M. |
| 1 | 1301-410 | Spring School "Extreme Environments"* | blocked in March | 7.5 | Fox |

| Sem | Code | Name of Module | Duration | Credits | Professor |
|---|---|---|---|---|---|
| 1/3 | 3402-420 | Quantitative Methods in Biosciences | 1 Semester | 6 | Piepho |
| 1/3 | 4611-420 | The Bacterial Genome, from Culture to Functional Reconstruction | blocked in March | 6 | Kube |
| 2 | 3408-430 | Molecular Plant Nutrition | 1 Semester | 6 | Ludewig |
| 2 | 3401-450 | Conservation Agriculture | 1 Semester | 6 | Claupein |
| 2 | 3408-490 | Rhizosphere Processes - Nutrient Acquisition and Stress Adaptations of Higher Plants | 1 Semester | 6 | Neumann |
| 2 | 3401-500 | Bioactive Compounds of Food Crops | 1 Semester | 6 | Graeff-Hönninger |
| 2 | 3402-450 | Advanced Statistical Methods for Metric and Categorical Data | 1 Semester | 6 | Piepho |
| 2 | 3411-410 | Understanding Stress Physiology to Increase Yield Stability * | 1 Semester | 6 | Schmöckel |
| 2 | 3502-470 | Plant Genetic Resources | First half of semester | 6 | Schmid |
| 2 | 3602-460 | Information Technologies and Expert Systems in Plant Protection | 1 Semester + (partly blocked in June) | 6 | Gerhards |
| 2 | 3603-420 | Crop Protection in Organic Farming | 1 Semester | 6 | Petschenka |
| 2/3 | 3409-480 | Fertilization and Soil Fertility management in the Tropics and Subtropics | e-learning 1 Semester | 7.5 | Müller, T. |
| 3 | 3103-410 | Plant and Crop Modeling | In March | 6 | Priesack |
| 3 | 3408-450 | Plant Symbioses for Nutrient Acquisition | | 6 | Neumann |
| 3 | 3408-460 | Plant Quality | 1 Semester | 6 | Ludewig |
| 3 | 3601-460 | Molecular Phytopathology (partly blocked in March) | 1 Semester +blocked | 6 | Vögele |
| 3 | 3602-450 | Molecular Aspects of Plant Protection | 1 Semester | 6 | Gerhards |
| 3 | 3603-480 | Entomology | 1 Semester | 6 | Petschenka |
| 3 | 4302-420 | Ethical Reflection on Food and Agriculture * | 1 Semester | 6 | Bieling |
| 3 | 4905-420 | Crop Production Systems | 1 Semester | 6 | Cadisch |

* Limited number of participants. Please register for participation in ILIAS

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 an academic counsellor or the coordinator 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 | 2102-420 | Bioaktive Pflanzenstoffe* | Block 2, SS | 7,5 | Schlüter |
| 2 | 1101-410 | Applied Mathematics for the Life Sciences II * | Block 2, SS | 7,5 | Kügler |
| 2 | 4605-500 | Biologische Sicherheit und Gentechnikrecht | Block 2, SS | 7,5 | Beyer |
| 2 | 4905-430 | Integrated Agricultural Production Systems | Block 2, SS | 7,5 | Cadisch |
| 2 | 4905-470 | Biodiversity and Genetic Resources | Block 2, SS | 7.5 | Rasche |
| 2 | 4907-420 | Ecophysiology of Crops in the Tropics and Subtropics | Block 2, SS | 7,5 | Asch |
| 2 | 2402-410 | Molekulare Virologie** | Block 3, SS | 7,5 | Pfitzner |
| 2 | 4907-430 | Crop Production Affecting the Hydrological Cycle | Block 3, SS | 7,5 | Asch |
| 2 | 2402-420 | Angewandte molekulare Virologie** | Block 4, SS | 7,5 | Pfitzner |
| 2 | 2202-400 | Pathogens, Parasites and their Hosts, Ecology, Molecular Interactions and Evolution*** | Block 4, SS | 7,5 | Macken-stedt |

* *Limited number of participants. Registration/selection via ILIAS.*

** *These two have an advanced level of microbiology and have to be taken together. Registration/selection via ILIAS.*

*** *= EuroLeague Summer school: 8 places for UHOH-students!*

**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 graded)(see ILIAS)* | open | 1 – 7.5 | Kruse, M. |
| 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 | 2203-410 | Chemische Signale bei Tieren* | Block 4, WS | 7.5 | Steidle |
| 3 | 1301-410 ~~2302-410~~ | Spring School "Extreme Environments"* | blocked in Febr.-Mar. | 7.5 | Fox |
| 3 | 3102-450 | Molecular Soil Ecology * (not offered in WS 2020/21) | blocked in March | 6 | Kandeler |
| 3 | 3103-410 | Plant and Crop Modeling | blocked in March | 6 | Priesack |

** Limited number of participants! Registration/selection via ILIAS.*

***Semester Duration and Lecture Times***

A semester lasts 14 weeks (winter as well as summer semester). The lectures usually begin 15 minutes after the defined start time indicated in the course catalogue (c.t.=lat.: cum tempore =“with time”). Therefore, a lecture with a defined start time at 9 c.t. starts at 9:15. If a lecture starts on time at 9:00, there will be an indication 9 s.t. (lat.: sine tempore = “without time”).

***Modules with Limited Number of Participants***

Some modules can accept only a limited number of participants due to space constraints or supervision regulations. In this case, it is necessary to register for the module in advance. See also: https://www.uni-hohenheim.de/en/registration-for-modules. If there is a limited number of participants, this will be stated under the “comments” (“Anmerkungen”) section of the module description. Please check before lectures start as to whether the modules you have chosen have a limited number of participants or not. (uni-hohenheim.de/en/module-catalogue). Each module with a limited number of participants is set up as a course on the e-learning platform ILIAS (https://ilias.uni-hohenheim.de/). You have to register there and see how the spots are allocated on ILIAS. In general, the following applies: Students for whom the respective module is compulsory or the last module that needs to be completed to finish a degree program, must always be admitted. If you have not yet enrolled by the end of the registration period and do not yet have access to ILIAS, please contact the responsible lecturer by e-mail and ask for registration.

For blocked modules with a limited number of participants in block period 1, the registration starts at least two weeks before the start of the lecture period and ends eight days before the lecture period. For all other modules with a limited number of participants, the registration period starts at least one week before the start of the lecture period and ends at the end of the first week after the start of the lecture period.

Please note: the ILIAS registration is only for participation and NOT a registration for the examination!

***Credit Point System***

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

***Marks and Grades***

| | **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 |

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's Thesis.

***Registering for Examinations***

Students must register for all examinations in the HohCampus portal. The registration deadlines are published on the website of the Examinations Office: https://www.uni-hohenheim.de/en/examination

***Examinations***

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. Withdrawal from a registered module examination is possible until 7 days before the examination date.

The right to be admitted to an examination expires if:
- the examination of any module has been failed for the third time
- not all module examinations have been passed by the end of the seventh semester at the latest.
- the Master Thesis has not been registered by the beginning of the seventh semester at the latest.

The right of admission to examinations does not expire if the candidate cannot be held responsible for the failure to comply with the deadline. The students are responsible for complying with these examination deadlines as well as all other regulations given in the examination regulations. The examination regulations are distributed by the Examinations Office.

Please note that plagiarism, that means taking over text or phrases in a written examination (even within a partial examination) without quoting them accordingly, will be marked as a cheating attempt and the respective examination component is to be graded "fail" (F; mark 5.0). A declaration (https://agrar.uni-hohenheim.de/en/plagiats) has to be attached to home-works, presentations, and to the thesis.

***Exam Repetition***

If an examination is failed, the Examinations Office will inform the student via mail. Students are responsible for checking with the responsible professor or the Examinations Office about dates for repeat exams and register themselves. They will not be registered for re-examinations automatically! Usually repeat exams for blocked modules will be scheduled by the responsible professor within the same semester, repeat exams in unblocked modules will be scheduled for the next possible examination period. Students are not obliged to take a re-exam in the next possible examination period, but can choose to take it in one of the later examination periods, if they wish.

***Master's Thesis***

The Master's thesis shows 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 (thesis) and an oral (defense) part The written part of the Master's thesis has to be completed within a period of six months. It is usually written during the fourth semester. Thesis work includes a literature review, new and original data derived from field work, a period of writing-up and, finally, a presentation. The candidate has to defend the essential arguments, results, and methods of the thesis in a colloquium of 30-45 minutes. The thesis can be carried out either at the University of Hohenheim or at one of the various partner universities.

There are several possibilities for finding the right reviewer and the right topic. Sometimes you can find them from the homepage of the department or institute, or you can talk directly to a professor.

The Master's thesis has to be registered at the latest at the start of the seventh semester. Otherwise it is graded "fail" (F; mark 5.0).

***Evaluation of Modules***

The quality of courses and modules is evaluated every year by the students of all study programs. 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 examination period of three weeks. The last block period of each semester has an overlap with this examination period for the unblocked modules.

***Teaching Staff***

The professors of the University of Hohenheim have broad experience in international research. Students also benefit from Hohenheim's network of academic partners worldwide. Guest speakers from partner universities as well as research, development, and policy institutions cover additional topics, thus enriching the curriculum with special fields of expertise.

***Academic Counselling***

Academic counsellors are assigned to advise on appropriate profiles and to support smooth and focused study progress. Elective modules that are suitable for the individual profile can be discussed with them. If a student wants to select modules offered by a faculty other than the Faculty of Agricultural Sciences, they have to be approved by the academic counsellor or the course coordinator beforehand.

Academic counsellors for Crop Sciences and their respective research focus:

- Prof. Dr. Ludewig, program director (Nutritional Crop Physiology)
- Prof. Dr. Neumann (Nutritional Crop Physiology)
- Prof. Dr. Schmid (Crop Biodiversity and Breeding Informatics)
- Dr. Tobias Schrag (Plant Breeding)
- Prof. Dr. Voegele (Phytopathology)
- Prof. Dr. Petschenka (Applied Entomology)

***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 this kind of international mobility. 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 Veteri-nary and Agricultural University (KVL), Denmark; Swedish University of Agricultural Sciences (SLU), Sweden; Wageningen University, Nether-lands; 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. Students may also re-quest to spend the semester at universities other those 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 program if the total grade is above average.

***Responsible Scientist***

Prof. Dr. U. Ludewig
Department of Nutritional Crop Physiology

***Professors in charge of the majors***

Prof. Dr. U. Ludewig, Nutritional Crop Physiology
Prof. Dr. K. Schmid, Crop Biodiversity and Breeding Informatics

***Contact***

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# Geblockte Module der Fakultät Agrarwissenschaften für das Wintersemester 2020/21 10.08.2020
# Blocked Modules in Winter Semester 2020/21

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

| Blockperiode / Period<br>Studiengang / Study Course | **Block 1**<br>*(7.5 credits!)*<br>**02.11. - 27.11.2020** | **Block 2**<br>*(7.5 credits!)*<br>**30.11. - 22.12.2020/ 07.01. – 08.01.2021** | **Block 3**<br>*(7.5 credits!)*<br>**11.01. – 05.02.2021** | **Block 4**<br>*(7.5 credits!)*<br>**08.02. - 05.03.2021** | **März-Block/ March Block**<br>**i.d.R 08.03.-31.03.2021** |
|---|---|---|---|---|---|
| **B.Sc. Agrarwissenschaften** | | | | | |
| **M.Sc. Agrarwissenschaften** Pflanzen- und Tierwissensch. | | | | | ○ **4611-420** (Kube) Das bakt. Genom, exemplarisch von der Kultur zur funktion. Analyse |
| **M.Sc. Agrarwissenschaften** Tierwissenschaften | | | | | ◖ **4601-480** (Rodehutscord) Futtermitteltechnologie und -analytik |
| **M.Sc. Agrarwissenschaften** Bodenwissenschaften | | | | | |
| **M.Sc. EnviroFood** | | | | | |
| **M.Sc. Landscape Ecology** | ● **3201-560** (Schurr) Landscape Ecology | ● **3201-570** (Schurr) Community and Evolutionary Ecology | ● **3201-580** (Dieterich) Conservation Biology | ● **3202-440** (Schweiger) Plant Ecology | ○ **3201-420** (Schurr) Methods in Landscape and Plant Ecology *(7.5 credits!)* |
| **M.Sc EnvEuro** Ecosystems and Biodiversity (package 2) | ◖ **3201-560** (Schurr) Landscape Ecology | ◖ **3201-570** (Schurr) Community and Evolutionary Ecology | ◖ **3201-580** (Dieterich) Conservation Biology | ◖ **3202-440** (Schweiger) Plant Ecology | ◖ **3201-420** (Schurr) Methods in Landscape and Plant Ecology *(7.5 credits!)* |
| **M.Sc. Crop Sciences** (3.Sem., blocked semester package) | ○ **3000-410** (Kruse, M.) Portfolio Module (Master) | ○ **2601-410** (Schaller) Pflanze-Pathogen Interaktionen *(ganztägig, 5 Plätze für CS)* | ○ **2602-500** (Schulze) Regulatorische Prinzipien pflanzlicher Signaltransduktionswege *(ganztägig, 5 Plätze für CS)* | ○ **2203-410** (Steidle) Chemische Signale bei Tieren *(Zeiten n.V., 3 Plätze für CS)* | ○ **3103-410** (Priesack) Plant and Crop Modeling *(6 credits)* |
| **Sonstige M.Sc./Other M.Sc.** | | | | | ○ **1301-410** (Fox) Spring School "Extreme Environments" *(7.5 credits!)* |
| | | | | | ○ **4909-430** (Focken) Experimental Aquaculture (8.3-19.3.*at Bremerhaven) (6 credits)* |
| | | | | | |
| | | | | | |
| | | | | | |

Anmeldemodalitäten für Teilnahme siehe HohCampus: Modulbeschreibungen anzeigen/ Check HohCampus for how to register for participation: View module handbooks

# Geblockte Module der Fakultät Agrarwissenschaften für das Sommersemester 2021 10.08.2020
# Blocked Modules in Summer Semester 2021

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

| Blockperiode / Period<br>Studiengang / Study Course | **Block 1** *(7,5 credits)*<br>**12.04. - 07.05.2021** | **Block 2** *(7,5 credits)*<br>**10.05. - 21.05.2021 + 31.05. - 11.06.2021** | **Block 3** *(7,5 credits)*<br>**14.06. - 09.07.2021** | **Block 4** *(7,5 credits)*<br>**12.07. - 06.08.2021** | **By arrangement** *(7,5 cr)* |
|---|---|---|---|---|---|
| **M.Sc. Agrarwissenschaften** Bodenwissenschaften | ◖ **3103-450** (Streck) Spatial Data Analysis with GIS | ◖ **3102-440** (Kandeler) Environmental Pollution and Soil Organisms | ◖ **3101-570** (Herrmann) Boden- und veg.kundl. Geländeübung / Field Course Soils + Vegetation | ● **3101-430** (Herrmann) Integriertes bodenwissenschaftliches. Projekt für Fortgeschrittene | ◖ **3102-420** (Kandeler) Bodenwissenschaftliches Experiment/Project in Soil Sciences (Engl.+ Ger.) |
| | *2021, 2023, …:* ◖ **3101-460** Herrmann) Soils of the World - Formation, Classification, and .. / *2022, 2024, …:* ◖ **3101-580** (Rennert) Bodenschutz, Bodenbewertung, -sanierung | ◖ **3201-620** (Schmieder) Vegetation and Soils of Centr. Europe | | | ○ **3101-420** (Herrmann) Internationale standortkundliche Geländeübung / International Field Course Site Evaluation (Engl.+Ger.) (September 2021) |
| **M.Sc. Agrarwissenschaften** | ○ **3602-410** (Gerhards) Integrierter Pflanzenschutz mit Übungen | ○ **4605-500** (Beyer) Biologische Sicherheit und Gentechnikrecht | ◖ **7301-410**(Rosenkranz) Bienen | ○ **4604-420** (Steffl) Seminar zu klinischen Fallstudien der Spez. Anatomie und Phys. d. Nutztiere | |
| | | ○ **7301-400** (Rosenkranz) Soziale Insekten *(10 Plätze f. Fak. A)* | | | |
| Tierwissenschaften: Profil Ernährung und Futtermittel | ◖ **4603-420** (Seifert) Futtermittelmikrobiologie | ◖ **4601-470** (Rodehutscord) Tracerbasierte Methoden in der Tierernährung | | ◖ **4601-450** (Rodehutscord.) Spezielle Ernährung der Wiederkäuer | |
| Tierwissenschaften: Profil Genomik und Züchtung | | ◖ **4607-510** (Bennewitz) Zuchtplanung und Zuchtpraxis i. d. Nutztierwissenschaften | ◖ **4608-420** (Hasselmann) Molekulare Evolution und Populationsgenetik | | |
| Tierwissenschaften: Profil Gesundheit und Verhalten | ◖ **4606-490** (Stefanski) Verhaltensbiologie | ◖ **4606-420** (Stefanski) Immunologie und Infektionsbiologie | ◖ **4604-410** (Huber) Leistungsassoziierte Stoffwechselstörungen bei landwirtschaftlichen Nutztieren | ◖ **4605-490** (Hölzle) Spezielle Tierhygiene | |
| **M.Sc. AgriTropics** | ● **4907-440** (Asch) Interdiscipl. Practical Science Traíning *(Double cohort!)* | ○ **4905-470** (Rasche) Biodiversity and Genetic Resources | ○ **4909-420** (Dickhöfer) Quantitative Meth. in Animal Nutrition + Vegetation Sciences | | |
| Livestock | | ○ **4908-480** (Chagunda) Animal Breeding for Sustainable Development | | ○ **4908-420** (Chagunda) Promotion of Livestock in Trop. Environments | |
| Crops | | ○ **4905-430** (Cadisch) Integrated Agricultural Production Systems | ○ **4907-430** (Asch) Crop Production Affecting the Hydrological Cycle | | |
| | | ○ **4907-420** (Asch) Ecophysiology of Crops in the Tropics and Subtropics | | | |
| Engineering | | ○ **4403-550** (Müller, J.) Postharvest Technology of Food and Bio-Based Products | ○ **4403-470** (Müller, J.) Renewable Energy for Rural Areas | ○ **4403-410** (Müller, J.) Irrigation and Drainage Technology | |
| Social Sciences | | | | *2022, 2024, 2026, …:* ○ **4302-400** (Lemke) Gender, Nutrition, and Right to Food | |

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| **M.Sc. Crop Sciences** (blocked semester packages) | ○ **2601-430** (Schaller) Entwicklungsbiologie der Pflanzen *(5 Plätze für CS)* | ○ **1101-410** (Kügler) Applied Mathematics for the Life Sciences II *(5 Plätze für CS)* | Sofern Zulassung möglich: ggf. Kombination der beiden Virologie-Module 2402-410 und 2402-420 in Block 3 und 4 | ○ **2202-400** (Mackenstedt) Pathogens, Parasites and their Hosts, Ecology, Molec. Interactions a. Evolution *(8 Pl. UHOH)* | |
| | | ○ **4605-500** (Beyer) Biologische Sicherheit und Gentechnikrecht | | | |
| | | ○ **4905-430** (Cadisch) Integr. Agricultural Production Systems | ○ **4907-430** (Asch) Crop Prod. Affecting the Hydrological Cycle | | |
| | | ○ **4907-420** (Asch) Ecophysiology of Crops in the T+S | | | |
| **M.Sc. EnviroFood** | ● **3103-450** (Streck) Spatial Data Analysis with GIS | ◖ **3102-440** (Kandeler) Environmental Pollution and Soil Organisms | ◖ **4302-470** (Bieling) Landscape Change, Resilience, and Ecosystem Services | *2022, 2024, 2026, …:* ○ **4302-400** (Lemke) Gender, Nutrition, and Right to Food | |
| | | ◖ **4905-470** (Rasche) Biodiversity and Genetic Resources | | | |
| | | ◖ **4403-550** (Müller, J.) Postharvest Technology of Food and Bio-Based Products | ◖ **4403-470** (Müller, J.) Renewable Energy for Rural Areas | ◖ **4403-410** (Müller, J.) Irrigation and Drainage Technology | |
| **M.Sc. EnvEuro** Environmental Management | ● **3103-450** (Streck) Spatial Data Analysis with GIS | ◖ **4905-430** (Cadisch) Integrated Agricultural Production Systems | ◖ **4403-470** (Müller, J.) Renewable Energy for Rural Areas | ○ **3201-600** (Schurr) Intensive Course Landscape Ecology | ◖ **3409-480** (Müller, T.) Fertilisation and Soil Fertility Management in the T. and S. |
| | | ◖ **4905-470** (Rasche) Biodiversity and Genetic Resources | ◖ **4302-470** (Bieling) Landscape Change, Resilience, and Ecosystem Services | ◖ **4403-410** (Müller, J.) Irrigation and Drainage Technology | |
| Soil Resources and Land Use | ● **3103-450** (Streck) Spatial Data Analysis with GIS | ◖ **3201-620** (Schmieder) Vegetation and Soils of Centr. Europe | ○ **4907-430** (Asch) Crop Production Affecting the Hydrological Cycle | | ◖ **3409-480** (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 | ◖ **4403-410** (Müller, J.) Irrigation and Drainage Technology | ◖ **3102-420** (Kandeler) Bodenwissenschaftl. Experiment/Project in Soil Sciences (Engl.+ Ger.) |
| Ecosystems and Biodiversity | ● **3201-590** (Schurr) Combining Ecological Models and Data | ◖ **3201-620** (Schmieder) Vegetation and Soils of Centr. Europe | ◖ **3101-570** (Herrmann) Field Course Soils and Vegetation | ○ **2202-400** (Mackenstedt) Pathogens, Parasites and their Hosts, Ecology, Molec. Interactions a. Evolution *(8 Pl. UHOH)* | ○ **3101-420** (Herrmann) International Field Course Site Evaluation (Engl.+Ger.) (September 2021) |
| | | ◖ **4905-470** (Rasche) Biodiversity and Genetic Resources | ◖ **4302-470** (Bieling) Landscape Change, Resilience, and Ecosystem Services | ◖ **3201-600** (Schurr) Intensive Course Landscape Ecology | |
| **M.Sc. Landscape Ecology** | ◖ **3201-590** (Schurr) Combining Ecological Modells and Data | ◖ **3201-620** (Schmieder) Vegetation and Soils of Centr. Europe | ◖ **3101-570** (Herrmann) Field Course Soils and Vegetation | ● **3201-600** (Schurr) Intensive Course Landscape Ecology | ○ **3101-420** (Herrmann) Internationale standortkundliche Geländeübung / International Field Course Site Evaluation (Engl.+Ger.) (September 2021) |
| | ◖ **3103-450** (Streck) Spatial Data Analysis with GIS | ◖ **4905-470** (Rasche) Biodiversity and Genetic Resources | ◖ **4403-470** (Müller, J.) Renewable Energy for Rural Areas | | |
| | ◖ **3101-460** (Herrmann) Soils of the World - Formation, Classification, and … (*2021, 2023,...)* | ◖ **4906-430** (Graß) Field Course Agroecology and Biodiversity | ◖ **4302-470** (Bieling) Landscape Change, Resilience, and Ecosystem Services | | |
| | | | ◖ **4906-440** (Graß) Agroecology and Biotic Resource Conservation | | |

Anmeldemodalitäten für Teilnahme siehe HohCampus: Modulbeschreibungen anzeigen/ Check HohCampus for how to register for participation: View module handbooks

# Module code

Each module and each course is designated by a specific code**.** The first four digits represent the respective institute and the department or study field (i.e. of the responsible person / course instructor). The next three digits correlate to the type of module and the term, as well as the courses.

**11** 00-00 0 = institute number (31 – 49 in the Faculty of Agriculture)

00 **01**-00 0 = department within the institute (01 - 99 possible)

00 00-**01** 0 = module designation:

- -**01** 0 - **20** 0 basic modules for Bachelor's students
- -**21** 0 - **40** 0 specialization study modules for Bachelor's students
- -**41** 0 - **80** 0 modules for Master's students
- -**81** 0 - **90** 0 modules for doctoral candidates

0000-01 **1** = course 1 of a module (1 - 9 courses possible)

For example: 4201-410 Agricultural and Food Policy

4201: Number of the institute (420: Agricultural and Food Policy)

410: The 4 indicates that it is a module on Master's level (lower numbers indicate Bachelor's level. Note: Bachelor's modules cannot be chosen as elective modules!)

0 indicates that it is the module name. 1, 2 or 3 as last digit indicate that it is a teaching sub-unit within a module (tutorial, exercises, lectures, etc.)

# Lecture Periods at UHOH

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| **WS 20/21** | **First day of unblocked modules:** | (45. KW) Monday, 2 Nov 2020 |
| | **First day of blocked modules:** | (45. KW) Monday, 2 Nov 2020 |
| | **Last day of unblocked modules:** | (6. KW) Saturday, 13 Feb 2021 |
| | **Last day of blocked modules:** | (9. KW) Friday, 5 March 2021 |
| **SS 21** | **First day of blocked modules:** | (15. KW) Monday, 12 Apr 2021 |
| | **First day of unblocked modules:** | (15. KW) Monday, 12 Apr 2021 |
| | **Last day of unblocked modules:** | (29. KW) Saturday, 24 Jul 2021 |
| | **Last day of blocked modules:** | (31. KW) Friday, 6 Aug 2021 |

**No lectures:** All Saints' Day: Thurs, 01 Nov 2020, Christmas holidays: Mo, 23 Dec 2020 – Mo 06 Jan 2021, Easter: Fri, 2 Apr – Mon, 5 Apr 2021, International Labor Day: Fr, 01 May 2021, Ascension: Thurs, 13 May 2021, Pentecost: Mon, 24 May 2021 – Sat, 29 May 2021 (excursions might take place during that week!), Corpus Christi: Thurs, 3 June 2021.

**See also:** https://www.uni-hohenheim.de/en/semesterdates

**Examination periods for the winter semester 2020/21 and the summer semester 2021 were not known at the time of publishing this curriculum.**

Check the website of the Examinations Office for up-to-date information: https://www.uni-hohenheim.de/en/examination