UNIVERSITY OF HOHENHEIM

CURRICULUM | WINTER SEMESTER 2024/25

Agricultural Sciences in the Tropics and Subtropics

Master of Science

Faculty of Agricultural Sciences | As of September 2024

Preamble

This curriculum provides applicants and students as well as teaching and administrative staff with comprehensive information about the M.Sc. program "Agricultural Sciences in the Tropics and Subtropics It contains information on the program structure and summarizes the most important exam regulations (issued the 23rd and 25th of July 2024).

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 refer to the coordinator of the program (agritropics@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 for all courses are displayed in the Course Catalog of the University of Hohenheim, available at the beginning of each semester on the University's homepage: uni-hohenheim.de/en/course-catalog

Imprint

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Published by Faculty of Agricultural Sciences
University of Hohenheim, 70593 Stuttgart, Germany

Print: University of Hohenheim

Table of Contents

The Master's Program Agricultural Sciences in the Tropics and Subtropics

1 PROGRAM OBJECTIVES

The population of our world is more than 8 billion and quickly rising. To provide food for ourselves and our children in the years to come, we will need to understand and manage ever more complex and diverse agricultural and ecological systems to enable more efficient and sustainable food production in a way that conserves resources. This will be particularly true for developing countries in tropical and subtropical regions where the population is increasing most rapidly.

Any attempts to tackle the problems must involve the application of all branches of Agricultural Sciences in ways that will carefully analyze existing food production systems, develop sound strategies to safeguard natural resources, and provide new, sustainable, and adaptable techniques for farmers to use.

To meet this demand, the Master's Program Agricultural Sciences in the Tropics and Subtropics (AgriTropics) was developed in cooperation with international agricultural research and development organizations. A program advisory board meets regularly to support the program in its effort to educate students for the challenging tasks in international agriculture and resource conservation. Students of all nationalities acquire analytical skills and multidisciplinary competence to address current and future problems in agricultural ecosystems.

The M.Sc. Program "Agricultural Sciences in the Tropics and Subtropics" was awarded by the German Academic Exchange Service (DAAD) with the quality label "TOP 10 International Master's Degree Courses Made in Germany" in 2008.

Since 2022 this M.Sc. program is offered as an optional double degree in cooperation with the Czech University of Life Sciences in Prague. Students can opt to study the first year at the University of Hohenheim and the second year Czech University of Life Sciences in Prague, and vice versa.

2 MODULES

2.1 What is a Module?

A module is a teaching unit and can consist of several courses (lecture, seminar, excursion, practical exercises…). Modules at the University of Hohenheim correspond to 6 ECTS credits (unblocked modules) or 7.5 ECTS credits (blocked modules). A few modules with higher workload correspond to 12 or even 15 credits. (See also chapter 2.4)

A detailed description on the content and structure of each module is found in the Module catalogue uni-hohenheim.de/modulkatalog#Master

2.2 Modules and associated workload

Students earn ECTS credits for the workload associated with each module (1 ECTS credit = 30 h workload). A module of 6 credits corresponds to a workload of 4 SWS (4 weekly semester hours / 56 total contact hours). A module of 7.5 credits corresponds to a workload of 5 SWS (5 weekly semester hours / 70 total contact hours). In addition, each credit requires preparation time, 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.

The M.Sc. program has a requirement of 120 credits in total (90 credits from course work, 30 credits for the Master's thesis).

2.3 Modules per semester

A typical semester consists of 30 credits, and is either composed of 5 unblocked modules, (6 credits each) or 4 blocked modules (7.5 credits each). Typically, the modules are completed in the first three semesters, followed by the Master's thesis in the fourth semester. However, the examinations regulations allow a certain degree of flexibility. For details, refer to uni-hohenheim.de/en/examination.

2.4 Blocked and unblocked modules

The University of Hohenheim offers two different types of modules: unblocked modules and blocked modules. Unblocked modules correspond to a workload of 6 credits and blocked modules to a workload of 7.5 credits.

2.4.1 Unblocked Modules

Unblocked modules are based on 4 contact hours per week for the whole semester period. They end with an exam at the end of the semester.

2.4.2 Blocked Modules

Blocked Modules are composed of 3 weeks of daily instruction (usually 5 hours per day) followed by one week of individual preparation, ending with a final exam at the end of the 4th week. Blocked modules correspond to a higher workload than unblocked modules, and are therefore worth 7.5 credits. However, mixing blocked and unblocked modules in one semester it is not recommended, as lectures and lesson follow-up may overlap significantly.

2.5 Module Categories

Each Master's program consists of compulsory and elective modules; some study programs also include semi-elective modules. The credits of each module correspond to the workload and not to the category, i.e. an elective module with 6 credits has the equal weight as a compulsory module with regard to the final average grade.

2.5.1 Compulsory Modules

… are the modules providing the core knowledge of the study program. Those modules have to be completed to obtain the M.Sc. degree.

2.5.2 Semi-elective Modules

…are modules covering a wider range of content related to the aim of the study program. In some programs, a defined minimum number of modules out of a pool of semi-elective modules must be chosen and completed. The Master's program in Agricultural Sciences in the Tropics and Subtropics does not have semi-elective modules.

2.5.3 Elective modules

…are modules chosen by the individual students, according to their interests. They are the modules outside of a program's compulsory modules, which contribute to the final total of 90 ECTS credits required for the achievement of an M.Sc. degree. They can be chosen from all Master's modules offered by the Faculty of Agricultural Sciences of the University of Hohenheim. On request, subject-related Master's modules offered from other faculties or other universities can also be chosen. Note: Bachelor's modules cannot be chosen as elective modules.

2.5.4 Additional modules

…are modules taken out of individual interest beyond the 90 ECTS coursework credits required for the completion of the degree. Credits from additional modules will not be included in the calculation for your final average grade. But, on request to the examinations office, they can be shown on your final transcript.

There are two special cases of elective modules, which are worth highlighting:

2.6 Portfolio Module (3000-410)

You can gain up to 7.5 credits (not graded) for extra-curricular activities like internships, participation in conferences, trainings or summer schools, language courses (max. 3 credits), writing research papers, courses on statistical programs or similar activities. These credits can replace an elective module. The detailed explanation is found in the module catalog under module code 3000-410.

2.7 English for Scientific Purposes (3000-420)

This module consists of four English courses of C1 level at the language center Hohenheim. You can choose from several courses and workshops, and they can stretch over several semesters.

After completing the four courses/workshops you must write an exam to obtain the UniCert III certificate. This module counts as an elective module and is the only way language courses can be recognized for your studies apart from the portfolio module. The detailed explanation is found in the module catalog under module code 3000-420

2.8 Certificate program in Artificial Intelligence and Data Science in Hohenheim (AIDAHO)

The program is designed for students of all faculties: aidaho.uni-hohenheim.de/en/home. The aim of AIDAHO is to increase the expertise of its participants in the fields of Artificial Intelligence (AI), Data Science and Scientific Computing. Students can enroll in the certificate in addition to their main course of study. The AIDAHO courses can be taken in any order.

2.8.1 How to achieve the certificate

To successfully complete the program, students must pass at least five AIDAHO modules (30 ECTS).

- There are **three mandatory basic modules** that all participants must complete. The courses of these modules teach basic programming skills and statistic methods.
- In the **two semi-elective specialization modules** students can either deepen their methodological skills or choose to work on data projects in application seminars.

The following sections cover additional information about the basic and specialization modules. A complete list of all courses of all faculties in the AIDAHO program can be found here: aidaho.uni-hohenheim.de/en/courses

The basic modules contain three courses which all participants of the AIDAHO program have to pass:

Sem	Code	Name of Module	Duration	Credits	Professor
1 or 2	5000-300 (B.Sc.-level!)	Tools for AI & Data Science (no elective module, only additional for M.Sc.) *(AIDAHO-Basic)	1 Semester	6	Krupitzer/ Vogelgesang
2	4407-480	Introduction to Machine Learning with Python*(AIDAHO-Basic)	1 Semester e-learning	7.5	Stein
1/3	5107-410	Introduction to Applied Data Science*(AIDAHO-Basic)	1 Semester	6	R. Jung

In the specializing part students enroll in two modules. At least one of them must be an application course. Modules of this curriculum that apply to the AIDAHO certificate as a specialization module *(AIDAHO specialization) or application course *(AIDAHO application) are marked. All these modules can be integrated into the Master's degree at the same time in accordance with the program-specific regulations.

Passed project works, seminar papers or theses, in which a substantial part was the quantitative data analysis or working with machine learning/artificial intelligence, can be credited as an "application course".

Questions about the AIDAHO certificate should be directed to aidaho@uni-hohenheim.de

2.9 Modules with limited numbers of participants

Some modules can accept only a limited number of participants due to space constraints or supervision regulations. It is necessary to register for such modules in advance. See also: uni-hohenheim.de/en/registration-for-modules .

If the number of participants is limited, this will be stated under the "comments" ("Anmerkungen") section of the module description. Please check before lectures start, whether the modules you have chosen have a limited number of participants or not. (uni-hohenheim.de/en/module-catalogue). Each module is set up as a course on the e-learning platform ILIAS (ilias.uni-hohenheim.de). You must register there and see how the spots for each course are allocated. Further instructions and information, e.g. how to contact the relevant lecturer or to join the waiting list are also available there. Generally, students for whom the respective module is compulsory or the last module that needs to be completed to finish a degree program will 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.

2.10 Module codes

Each module and each course have a specific code. Example: 4906-410 Ecology and Agroecosystems.

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 correspond to the type of module and the term, as well as the course.

4906 - 410 = institute number (490 Institute of Agricultural Sciences in the Tropics "Hans Ruthenberg Institute")

000**6** - 000 = department within the institute (6 corresponds to the 6th letter in the alphabet: F -> department 490f Ecology of Tropical Agricultural Systems)

0000 - **41**0 = module designation:
01 - 40 modules for Bachelor's students
41 - 80 modules for Master's students
81 - 90 modules for doctoral candidates

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

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

2.11 Individual Timetable

The Master's programs at the University of Hohenheim offer a high variety of different modules that can be chosen as elective modules. This allows for a personalized study profile with different specializations as well as for the creation of individual timetables depending on the choice of courses.

The Course Catalog of the University of Hohenheim contains information on times, lecturers, and lecture rooms of all courses, and is available at the beginning of each semester online on the University's homepage: uni-hohenheim.de/en/course-catalog. It is linked to the modules listed in the HohCampus Study Planner. A tool to compose a virtual individual timetable is also available on HohCampus [hohcampus.uni-hohenheim.de/en/hohcampus-help-schedule]. Please note: many modules consist of more than one course e.g. a lecture and a seminar (see above, module code explanation).

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").

2.12 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 on paper or sent as online links by email and evaluated by the Faculty of Agricultural Sciences. 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. This feedback is important for the Faculty to be able to continuously improve the study experience for our students.

EXAMINATIONS

Each module is completed with an examination. To be eligible for an exam, students must register for it on HohCampus during the designated registration periods. These periods are published on the examinations office website and in HohCampus. During the registration process, students have the option to choose whether the module should be categorized as semi-elective, elective, or additional (refer to chapter 2.5 Module Categories for more details). It is important to note that students are allowed to change the designation of modules (e.g., from additional to elective or vice-versa) only once throughout their entire study period. Consequently, most students opt to request this change shortly before completing their degree, as they will have access to the most information and can make better-informed decisions based on their completed modules.

In every semester there are two designated examination periods, and students can choose in which period they want to write the exam. 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. The first examination period starts directly after the end of the lecture period, the second examination period takes place shortly before the lecture period of the next semester starts.

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's thesis has not been registered by the beginning of the seventh semester at the latest.

The right to be admitted to an examination 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 —copying text or phrases in a written examination (even as part of a partial performance) without quoting them accordingly—will be marked as a cheating attempt and the respective examination performance is to be graded "fail" (F; mark 5.0). A declaration (available at: agrar.uni-hohenheim.de/en/plagiarism) has to be attached to homeworks, presentations, and to the Master's thesis.

2.13 Registering for Examinations

Students must register for the examinations of each semester at the examination office using HohCampus. The registration must take place during the time period announced at the examination office. When you must register for an examination depends on whether it is a blocked or a non-blocked module. More information on examination periods and dates, deadlines for registration, withdrawal, and resits is given at the homepage of the examination office (uni-hohenheim.de/en/examination).

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

2.14 Exam Repetition

If an exam is failed, the Examinations Office will inform the student via post. Students are responsible for checking in HohCampus or with the responsible professor about dates for resit exams and registration deadlines. Resit exams for blocked modules will usually be scheduled by the responsible professor within the same semester. Resit exams in unblocked modules will usually be scheduled for the next 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.

3 MARKS AND GRADES

3.1 Credit Point System at the University of Hohenheim

With each completed module, students earn credits for the workload associated with each module. The M.Sc. program has a requirement of 120 credits in total. The credit point system used in the M.Sc. program 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.

	Marks and Grades		
	grades		score
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 final score is calculated as an average score weighted according to the credits achieved in all modules and the thesis.

The final, weighted average of received scores results in a final grade for the Master's degree according to the table below:

between 1,0 and 1,5 = very good (A)
between 1,6 and 2,5 = good (B)
between 2,6 and 3,5 = medium (C)
between 3,6 and 4,0 = pass (D)
Additional and non-graded modules will not be included in the calculation of the final average grade.

3.2 Double degree, transformation of grades between the partner universities CZU and UHOH

For students following the double degree with the Czech University of Life Sciences in Prague (CZU) the following transformation of grades applies:

3.2.1 Transformation of UHOH grades into CZU grades

UHOH		CZU	
A	Very good	1	Excellent
A-			
B+	Good	2	Very good
B			
B-			
C+	Medium		
C			
C-			
D+	Pass	3	Good
D			
F	Fail	4	Failed

3.2.2 Transformation of CZU grades into UHOH grades

CZU		UHOH	
1	Excellent	A	Very good
2	Very good	B-	Good
3	Good	D	Medium
4	Failed	F	Fail

Students must send the transcripts of records of the home university to the host university and vice versa to have the grades and credits included in the respective transcript of record of the other university.

4 SEMESTER STRUCTURE

The academic year at the University of Hohenheim is structured into two semesters, a winter semester (October until March) and a summer semester (April until September). The lecture period of each semester usually lasts 14 weeks (winter as well as summer semester).

Winter semester (WS) courses usually begin in the middle of October and end in February of the following year. Summer semester (SS) courses begin the first Monday in April and by end of July / beginning of August. For unblocked modules, the lecture period of each semester is followed by an examination period of three weeks. The last block period of each semester overlaps with this examination period for the unblocked modules. (See also back side of this brochure for important semester dates)

5 PROGRAM DESIGN

The two-year study program has a scope of 120 ECTS credits. The language of instruction is English and the program can only be started in October (winter semester) each year.

Students can opt for a single degree at the University of Hohenheim (UHOH) or a double degree in cooperation with the Czech University of Life Sciences in Prague (CZU).

5.1 Program overview of the single degree at UHOH

<table>
<tr><th>1. Semester (unblocked)</th><th>2. Semester (blocked)</th><th>3. Semester (unblocked)</th><th>4. Semester</th></tr>
<tr><td>4905-420 (Kroschel) Crop Production Systems (6 credits)</td><td rowspan="2">4907-440 (Asch) Interdisciplinary Practical Science Training (7.5 credits)</td><td>Elective module (6 credits)</td><td rowspan="6">Master Thesis (30 credits)</td></tr>
<tr><td rowspan="2">4906-410 (Graß) Ecology and Agroecosystems (6 credits)</td><td rowspan="2">Elective module (7.5 credits)</td><td>Elective module (6 credits)</td></tr>
<tr><td rowspan="2">4903-460 (Birner) Methods in Interdisciplinary Collaboration (6 credits)</td><td>Elective module (6 credits)</td></tr>
<tr><td rowspan="2">Elective module (7.5 credits)</td><td rowspan="2">Elective module (6 credits)</td></tr>
<tr><td>4907-410 (Asch) Natural Resource Use and Conservation in the T. + S. (6 credits)</td></tr>
<tr><td>Elective module (7.5 credits)</td><td></td></tr>
<tr><td>4908-440 (Roesel) Livestock Production Systems and Development (6 credits)</td><td></td><td>Elective module (6 credits)</td><td></td></tr>
</table>

The single degree at UHOH consists of 14 modules totaling 90 credits (including one with practical science training) and one research semester (30 credits), during which a Master's thesis has to be done. Six of the modules are compulsory (37.5 credits).

To create an individual study profile, students must complete eight elective modules (at least 52.5 credits). These modules can be chosen from the complete catalog of the modules of all Master's programs of the Faculty of Agricultural Sciences (see: uni-hohenheim.de/en/module-catalogue). Modules can also be chosen from other study programs at the University of Hohenheim, or at other universities in Germany or abroad, insofar as these are approved by the examination board. (See also chapter 1.2.5)

Particularly recommended elective modules to choose from are listed on pages 15 and 16.

5.2 Program overview of the double degree with CZU

5.2.1 First Year UHOH – Second Year CZU

Students starting at UHOH and opting for the double degree with CZU have to complete the same compulsory modules in the first two semesters like the single-degree students, and in addition they have to join two online courses in the second semester offered by CZU in preparation of the Master's thesis (5 credits). Furthermore, two elective modules (15 credits) must be completed in the second semester. The data collection of the thesis is undertaken in the summer break, under the guidance of the thesis supervisor of CZU, before moving on to the host university in Prague. The thesis will be jointly supervised by a professor from CZU (main supervisor) and a professor at UHOH (second supervisor).

In September in their fourth semester students must join the state exam at CZU. The thesis defence will be part of this exam.

<table>
<tr><th>1. Semester (UHOH) (unblocked)</th><th>2. Semester (UHOH) (blocked)</th><th>Summer break (CZU)</th><th>3. Semester (CZU)</th><th>4. Semester (CZU)</th></tr>
<tr><td>4905-420 (Kroschel) Crop Production Systems (6 credits)</td><td>4907-440 (Asch) Interdisciplinary Practical Science Training (7.5 credits)</td><td rowspan="6">Data collection = practical training for the Thesis (5 credits)</td><td>Orientation meeting (1 credit)</td><td rowspan="3">Elective module(s) (15 credits)</td></tr>
<tr><td rowspan="2">4906-410 (Graß) Ecology and Agroecosystems (6 credits)</td><td rowspan="2">3000-410 Portfolio module including "Topic Selection and Research Plan Proposal" (2 credits) and "Research Design Finalization" (3 credits) offered online by CZU,
plus 2,5 credits by other activities</td><td>Economics of Farming Systems (5 credits)</td></tr>
<tr><td>Institutional and Behavioral Economics (5 credits)</td></tr>
<tr><td>4903-460 (Birner) Methods in Interdisciplinary Collaboration (6 credits)</td><td rowspan="2">Elective module (7.5 credits)</td><td>Data Analysis, Interpretation and Visualization (5 credits)</td><td rowspan="3">Thesis submission and State exams, including oral Thesis defense (15 credits)</td></tr>
<tr><td rowspan="2">4907-410 (Asch) Natural Resource Use and Conservation in the Tropics + Subtropics (6 credits)</td><td rowspan="2">Elective module(s) (9 credits)</td></tr>
<tr><td>Elective module (7.5 credits)</td></tr>
<tr><td>4908-440 (Roesel) Livestock Production Systems and Development (6 credits)</td><td></td><td></td><td></td></tr>
</table>

5.2.2 First Year CZU – Second Year UHOH

Students from CZU coming to UHOH for the second year of their studies must complete one compulsory module in their third semester and choose elective modules totalling to at least 29 credits.

In September in their fourth semester students must join the state exam at CZU. The thesis defence it not part of this exam, it can be done later

<table>
<tr><th>1. Semester
(CZU)</th><th>2. Semester
(CZU)</th><th>Summer break</th><th>3. Semester
(UHOH)</th><th>4. Semester
(UHOH)</th></tr>
<tr><td>Orientation meeting
(1 credit)</td><td>Global Food Security
(5 credits)</td><td rowspan="10">Free time to move to Germany</td><td rowspan="3">4903-460 (Birner) Methods in Interdisciplinary Collaboration
(6 credits)</td><td>Elective module
(5 credits)</td></tr>
<tr><td>Tropical Crop Management (5 credits)</td><td>Human Nutrition and Foodborne Diseases (5 credits)</td><td rowspan="3">Data collection, Data Analysis, Interpretation and Visualization,
Thesis Submission,
Thesis defense
(25 credits)</td></tr>
<tr><td>Animal husbandry
(5 credits)</td><td>Principles of Food Preservation
(5 credits)</td></tr>
<tr><td>Economics of Farming Systems (5 credits)</td><td>Seminar "Planning and Development of Research Design"
(1 credit)</td><td rowspan="3">Elective modules
(24 credits)</td></tr>
<tr><td>Institutional and Behavioural Economics
(5 credits)</td><td>Seminar "Data Presentation and Communication Skills"
(1 credit)</td></tr>
<tr><td rowspan="2">Seminar "Introduction to Agricultural Research"
(1 credit)</td><td rowspan="2">Research Design Finalisation
(3 credits)</td></tr>
<tr><td rowspan="4">Seminar "Principles of Data Processing and Visualisation" (1 credit)
Topic Selection and Research Plan Proposal (2 credits)
Elective module
(5 credits)</td><td rowspan="4">Elective modules
(10 credits)</td></tr>
</table>

5.3 Compulsory Modules at UHOH

Sem	Code	Name of Module	Duration	Credits	Professor
1	4905-420	Crop Production Systems	1 Semester	6	Kroschel
1	4906-410	Ecology and Agroecosystems *	1 Semester	6	Graß
1	4907-410	Natural Resource Use and Conservation in the Tropics and Subtropics	1 Semester	6	Asch
1	4903-460	Methods in Interdisciplinary Collaboration	1 Semester	6	Birner
1	4908-440	Livestock Production Systems and Development	1 Semester	6	Roesel
2	4907-440	Interdisciplinary Practical Science Training	SS, Block 1	7.5	Asch

* The number of places is limited but places for AgriTropics students are guaranteed. However, you are requested to register for participation online via ILIAS in the week before the lecture period starts.

5.4 Suggestions for elective modules

Sem.	Code	Name of Module	Duration	Credits	Professor
1-4	3000-410	Portfolio-Module (Master)	open	1 – 7.5	Kruse, M.
1-2	4907-490	Excursion to the Tropics and Subtropics (*every other year)(not in spring 2025)*	2 sem., partly blocked in Feb/March	6	Asch
2	4905-430	Integrated Agricultural Production Systems	SS, Block 2	7.5	Asch
2	4905-470	Biodiversity and Genetic Resources	SS, Block 2	7.5	Martin
2	4403-550	Post-Harvest Technology of Food and Bio-Based Products	SS, Block 2	7.5	Müller, J.
2	4908-480	Animal Breeding for Sustainable Development	SS, Block 2	7.5	Roesel
2	4403-470	Renewable Energy for Rural Areas	SS, Block 3	7.5	Müller, J.
2	4907-430	Crop Production Affecting the Hydrologic. Cycle	SS, Block 3	7.5	Asch
2	4907-420	Ecophysiology of Crops in the Tropics and Sub-tropics	SS, Block 4	7.5	Asch
2	4908-420	Promotion of Livestock in Tropical Environ-ments	SS, Block 4	7.5	Roesel
2	4905-460	Modeling of Agroecosystems	1 Semester	6 (!)	Asch
2	4407-480	Introduction to Machine Learning in Python (online) *(AIDAHO-Basic)	e-learning	7.5	Stein
2+3	3409-480	Fertilization and Soil Fertility Management in the Tropics and Subtropics (online)	e-learning	7.5	Müller, T.
3	3402-420	Quantitative Methods in Biosciences *(AIDAHO-Specialization)	1 Semester	6	Piepho
3	3402-480	Environmental and Ecological Statistics	1 Semester	6	Piepho
3	3090-410	Organic Farming in the Tropics and Subtropics	1 Semester	6	Zikeli
3	4301-470	Agricultural Knowledge Systems and Advisory Services	1 Semester	6	Knierim
3	4302-420	Ethical Reflection on Food and Agriculture *	1 Semester	6	Bieling
3	4302-500	Transformation Studies in Agri-Food Systems	1 Semester	6	Bieling
3	4303-420	Communicating Sustainability in Agri-Food Systems *	1 Semester	6	Seufert
3	4403-440	Irrigation and Drainage Technology	1 Semester	6	Müller, J.
3	4407-510	Intelligent Robotics for Agriculture	1 Semester	6	Stein

Sem.	Code	Name of Module	Duration	Credits	Professor
3	4901-470	Quantitative Methods in Economics * (AIDAHO-Specialization)	Second half of semester	6	Zeller
3	4901-420	Poverty and Development Strategies	1 Semester	6	Zeller
3	4902-430	Food and Nutrition Security	1 Semester	6	Boysen-Urban
3	4903-500	Policy Processes in Agriculture and Natural Resource Management	1 Semester	6	Birner
3	4908-450	Organic Livestock Farming and Products	1 Semester	6	Roesel
3	4607-480	Hot Topics and Advanced Methods in Animal Genetics and Breeding	1 Semester	6	Bennewitz
3	5107-410	Introduction to Applied Data Science *(AIDAHO Basic)	1 Semester	6	R. Jung
4	3101-460	Soils of the World - Formation, Classification, and … (every other year: 2025, 2027…) *	SS, Block 1	7.5	Herrmann
4	4903-510	Innovations for Sustainable Agri-Food Systems	1 Semester	6	Birner
4	4901-430	Rural Development Policies and Institutions *	1 Semester	6	Zeller
4	4901-480	Monitoring and Evaluation of Rural Development Projects	1 Semester	6	Zeller
4	5703-510	Entrepreneurship	1 Semester	6	Kuckertz

WS = winter semester, SS = summer semester

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

** See module catalogue for prerequisites necessary for attendance

6 MASTER'S THESIS

The Master's thesis is intended to show that the candidate is able to work independently on a problem in the field of "Agricultural Sciences in the Tropics and Subtropics" 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 and accounts for 30 credits. 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 on the homepage of the department or institute, some topics are circulated by the students' mailing list, or you can talk directly to a professor and suggest a topic.

It is recommended that you register the Master's thesis at the beginning of the fourth semester, but this is not a requirement, there is some flexibility. However, the thesis must be registered by the beginning of the seventh semester at the very latest. Otherwise, it is graded "fail" (F; score 5.0) and the degree cannot be completed. A failed thesis can only be repeated once.

7 TEACHING STAFF

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

8 ACADEMIC COUNSELLING

Academic counsellors advise students on their choice of modules to design their individual study profile and to support smooth and focused study progress. If a student wants to select modules offered by a faculty other than the Faculty of Agricultural Sciences, they must be approved by the academic counsellor or the program coordinator beforehand. Students can contact these counsellors at any time and ask for an appointment.

Academic counsellors for AgriTropics and their respective research focus are:

- Prof. Dr. Folkard Asch, Management of Crop Water Stress in the Tropics and Subtropics, fa@uni-hohenheim.de
- Prof. Dr. Ingo Graß, Ecology of Tropical Agricultural Systems, ingo.grass@uni-hohenheim.de
- Prof. Dr. Manfred Zeller, Rural Development Theory and Policy, manfred.zeller@uni-hohenheim.de
- Prof. Dr. Thomas Berger, Land Use Economics in the Tropics and Subtropics, i490d@uni-hohenheim.de
- Prof. Dr. Regina Birner, Social and Institutional Change in Agricultural Development, Regina.Birner@uni-hohenheim.de
- Prof. Dr. Joachim Müller, J., Agricultural Engineering in the Tropics and Subtropics, joachim.mueller@uni-hohenheim.de

9 STUDY ABROAD

Students opting for the single degree 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 (ELLS): euroleague-study.org/en/universities

Based on an agreement on quality standards, the members of the Euro League for Life Sciences have agreed to mutually recognize study achievements. Students may also request to spend the semester at universities other those of the ELLS network.

Students opting for the double degree will have a facilitated exchange to the partner university CZU for their second year of studies. They will receive guidance from the program coordinators and the offices of international affairs.

10 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 program if the total grade is above average.

Double degree students will obtain two full M.Sc. degree certificates, a Master of Sciences in "Agricultural Sciences in the Tropics and Subtropics" from the University of Hohenheim, and a Master of Sciences in "Agricultural Sciences and Farming Systems in the Tropics and Subtropics" from the Czech University of Life Sciences.

11 CAREER PERSPECTIVES

Graduates have very good chances on the international job market. Possible fields of work depending on the profile focus are e.g.:

- International and national agricultural research centers (CGIAR or departmental research)
- Ministries for development cooperation, land or environmental protection
- Development cooperation organizations
- Consulting firms
- International or national non-governmental organizations
- Universities and other research institutions
- Businesses in the agricultural sector
- EU institutions

Examples of AgriTropics graduates can be found here: uni-hohenheim.de/agritropics-alumni

12 AGRITROPICS PROGRAM DIRECTOR

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14 BLOCKED MODULES OF THE FACULTY OF AGRICULTURAL SCIENCES IN WINTER SEMESTER 2024/25

Blockperiode / Period Studiengang / Study Course	Block 1 *(7.5 credits!)* 14.10. - 08.11.2024	Block 2 *(7.5 credits!)* 11.11. - 06.12.2024	Block 3 *(7.5 credits!)* 09.12. – 20.12.2024 + 07.01. – 17.01.2025	Block 4 *(7.5 credits!)* 20.01. - 14.02.2025	März-Block/ March Block i.d.R. 24.02.-19.03.2025
M.Sc. Agrarwissenschaften Pflanzen- und Tierwissensch.			○ **7301-420** (Ernst) Aktuelle Themen zur Biologie der Honigbienen *(hybride Lehre)*		○ **4611-440** (Kube) The Bacterial Genome, from Culture to Functional Reconstruction (*7.5 credits*)
M.Sc. Agrarwissenschaften Tierwissenschaften					◖ **4601-480** (Rodehutscord) Futtermitteltechnologie und -analytik *(6 credits)* ○ **4605-510** (Hölzle) Wissensch. Fragestellungen d. Umwelt- und Tierhygiene (*6 credits*) (*n.V.)*
M.Sc. Agrarbiologie (nur die Module der Fakultät A)					◖ **4611-440** (Kube) The Bacterial Genome, from Culture to Functional Reconstruction (*7.5 credits*))
M.Sc. EnviroFood					◖ **3103-410** (Priesack) Plant and Crop Modeling (6 credits)
M.Sc. Landscape Ecology	● **3201-560** (Schurr) Landscape Ecology	● **3201-570** (Schurr) Community and Evolutionary Ecology	● **3201-580** (Dieterich) Conservation Biology	● **3201** (Schweiger) Plant Ecology	○ **3201-420** (Schurr) Methods in Landscape and Plant Ecology *(7.5 credits!) (time schedule individually arrangeable)*
M.Sc EnvEuro Ecosystems and Biodiversity (Alternative 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!) (individually arrangeable time schedule)*
M.Sc. Crop Sciences					○ **3103-410** (Priesack) Plant and Crop Modeling (6 credits) ○ **4611-440** (Kube) The Bacterial Genome, from Culture to Functional Reconstruction (*7.5 credits*)

Check HohCampus for how to register for participation: View module handbooks

● = Compulsory ◖ = Semi-elective ○ = Elective

15 BLOCKED MODULES OF THE FACULTY OF AGRICULTURAL SCIENCES IN SUMMER SEMESTER 2025

Blockperiode / Period Studiengang / Study Course	**Block 1** ***(7.5 credits)*** **01.04. - 25.04.2025**	**Block 2** ***(7.5 credits)*** **28.04. - 23.05.2025**	**Block 3** ***(7.5 credits)*** **26.05. - 06.06.2025+ 16.06. - 27.06.2025**	**Block 4** ***(7.5 credits)*** **30.06. - 25.07.2025**	**By arrangement** ***(7,5 credits)***
M.Sc. Agrarwissenschaften Bodenwissenschaften	◖ **3103-450** (Streck) Spatial Data Analysis with GIS ◖ **3102-460** (Kandeler) Molec. Bodenökol. /Molecular Soil Ecology ◖ **3101-460** (Herrmann) Soils of the World - Formation, Classification, and Land Evaluation *(only offered in odd years)*	◖ **3102-440** (Kandeler) Environmental Pollution and Soil Organisms ◖ **3201-620** (Schmieder) Vegetation and Soils of Centr. Europe	◖ **3101-570** (Herrmann) Boden- und veg.kundl. Geländeübung / Field Course Soils + Vegetation	● **3101-430** (Herrmann) Integriertes bodenwissenschaftliches. Projekt für Fortgeschrittene ○ **3201-430** (Schmieder) Ecology of Alpine Vegetation *(only offered in odd years)* ○ **3103-460** Env. Science Proj.	◖ **3102-420** (Kandeler) Bodenwissenschaftliches Experiment/Project in Soil Sciences (Engl.+ Ger.) ○ **3101-420** (Herrmann) Internationale standortkundliche Geländeübung (Engl.+Ger.) (September 2025)
M.Sc. Agrarwissenschaften und **MSc. NawaRo**	○ **3602-410** (Gerhards) Integrierter Pflanzenschutz mit Übungen *(Präsenz Ihinger Hof)* ○ **4605-500** (Hölzle) Biologische Sicherheit und Gentechnikrecht (taught in German!)	○ **7301-400** (Ernst) Soziale Insekten *(10 Plätze f. Fak. A)*	◖ **7301-430** (Traynor) Honey bee research and beekeeping techniques		○ **4407-480** (Stein) Introduction to Machine Learning in Python (*E-Learning*) *(unblocked)* ○ **4408-480** (Kruse, A.) Der Business Design Prozess - Von der Idee zum Produkt (*6 credits*)
M.Sc. Agrarwissenschaften Animal Science	◖ **4603-470** (Seifert) Feedstuff Microbiology ○ **4605-500** (Hölzle) Biologische Sicherheit und Gentechnikrecht (taught in German!) ◖ **4606-450** (Stefanski) Animal Behavior	◖ ~~**4601-490** (Rodehutscord) Tracer-based Methods in Animal Nutrition~~ (*not 2025)* ◖ **4607-520** (Bennewitz) Animal Breeding Methods: From Theory to Practice ◖ **4606-460** (Stefanski) Immunology and Infection Biology	◖ **4603-440** (Seifert) Interaktionen Mikrobiom-Nutztier/ Microbiom-Animal Interaction (Engl.+ Ger.) ◖ **4608-450** (Hasselmann) Molecular Evolution and Population Genetic ◖ **4604-430** ~~**410**~~(Huber) Physiological Limitations of Animal Performance	◖ ~~**4601-430** (Rodehutscord) Ruminant Nutrition~~ (not 2025) ◖ **4605-470** (Hölzle) Animal Hygiene and Welfare ○ **4604-420** (Steffl) Seminar zu klinischen Fallstudien der Spez.Anatomie und Phys. d. Nutztiere (taught in German!) ◖ **4908-420** (Roesel) Promotion of Livestock in Trop. Environments	○ **4605-510** (Hölzle) Research Questions of Environmental and Animal Hygiene (6 credits) ○ **4606-570** (Stefanski) Research Meth. and Scientific Developments in Behavioral Physiology (6 credits)
M.Sc. Agrarbiologie (nur die Module der Fakultät A)	◖ **4603-470** (Seifert) Feedstuff Microbiology ◖ **4613-420** (Camarinha Silva) Microbiome in Animals and Humans ◖ **3601-410** (Vögele) Molecular Phytopathology ◖ **3102-460** (Kandeler) Molec. Bodenökol. /Molecular Soil Ecology ○ **4605-500** (Hölzle) Biologische Sicherheit und Gentechnikrecht (taught in German!)	◖ **4906-430** (Graß) Field Course Agroecology and Biodiversity ◖ **3102-440** (Kandeler) Environmental Pollution and Soil Organisms	◖ **4603-440** (Seifert) Microbiom-Animal Interaction (Engl.+ Ger.) ◖ **4608-450** (Hasselmann) Molecular Evolution and Population Genetic ◖ **4604-430** ~~**410**~~ (Huber) Physiological Limitations of Animal Perfomance ◖ **3408-420** (Ludewig) Genetische und molekulare Regulation der pflanzlichen Nährstoffaufnahme	◖ **4907-420** (Asch) Ecophysiology of Crops in the T+S ◖ **4605-500** (Hölzle) Biologische Sicherheit und Gentechnikrecht ◖ **3411-430** (Schmöckel) Von Genen und Genregulation zu Transgenen und editierten Genomen	
M.Sc. Crop Sciences (option for a blocked semester)	○ **3601-410** (Vögele) Molecular Phytopathology ○ **4605-500** (Hölzle) Biologische Sicherheit und Gentechnikrecht	○ **4905-430** (Asch.) Integr. Agricultural Production Systems ○ **4905-470** (Martin) Biodiversity and Genetic Resources ○ **1509-510** (Schaum) Industry 4.0 Technologies	○ **4907-430** (Asch) Crop Prod. Affecting the Hydrological Cycle ○ **3504-470** (Nagel) Applied Seed Physiology	○ **1916-400** (Mackenstedt) Pathogens, Parasites and their Hosts, ... *(8 Pl. UHOH)* ○ **4907-420** (Asch) Ecophysiology of Crops in the T+S	

● = Compulsory ◖ = Semi-elective ○ = Elective

M.Sc. AgriTropics	● **4907-440** (Asch) Interdiscipl. Practical Science Training	○ **4905-470** (Martin) Biodiversity and Genetic Resources			
Livestock		○ **4908-480** (Roesel) Animal Breeding for Sustainable Development		○ **4908-420** (Roesel) Promotion of Livestock in Trop. Environments	
Crops		○ **4905-430** (Asch) Integrated Agricultural Production Systems	○ **4907-430** (Asch) Crop Prod. 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		○ **4407-480** (Stein) Introduction to Machine Learning in Python (*E-Learning*) *(unblocked)*
M.Sc. EnviroFood	● **3103-450** (Streck) Spatial Data Analysis with GIS	◖ **3102-440** (Kandeler) Environmental Pollution and Soil Organisms ◖ **4905-470** (Martin) Biodiversity and Genetic Resources ◖ **4403-550** (Müller, J.) Postharvest Technology of Food and Bio-Based Products	~~◖ **4302-470** (Bieling) Landscape Change, Resilience, and Ecosystem Services~~ (not 2025) ◖ **4403-470** (Müller, J.) Renewable Energy for Rural Areas	○ **3201-430** (Schmieder) Ecology of Alpine Vegetation *(only offered in odd years)* ○ **3201-600** (Schurr) Intensive Course Landscape Ecology ◖ **3103-460** (Streck) Environmental Science Project	◖ **3409-480** (Müller, T.) Fertilisation and Soil Fertility Management in the T. and S.
M.Sc. EnvEuro Environmental Management	● **3103-450** (Streck) Spatial Data Analysis with GIS	◖ **4905-430** (Asch) Integrated Agricultural Production Systems ○ **4905-470** (Martin) Biodiversity and Genetic Resources	◖ **4403-470** (Müller, J.) Renewable Energy for Rural Areas	○ **3201-600** (Schurr) Intensive Course Landscape Ecology ◖ **3103-460** (Streck) Environmental Science Project	○ **3409-480** (Müller, T.) Fertilisation and Soil Fertility Management in the T. and S.
Soil Resources and Land Use	● **3103-450** (Streck) Spatial Data Analysis with GIS	◖ **3201-620** (Schmieder) Vegetation and Soils of Centr. Europe ◖ **3102-440** (Kandeler) Environmental Pollution and Soil Organisms	○ **4907-430** (Asch) Crop Prod. Affecting the Hydrological Cycle ◖ **3101-570** (Herrmann) Field Course Soils and Vegetation	○ **3201-430** (Schmieder) Ecology of Alpine Vegetation *(only offered in odd years)* ○ **3103-460** (Streck) Environmental Science Project	◖ **3409-480** (Müller, T.) Fertilisation and Soil Fertility Management in the T. and S. ◖ **3102-420** (Kandeler) Project in Soil Sciences (Engl.+Ger.) ○ **3202-460** (Schweiger) Plant Ecology of Cultural Landscapes
Ecosystems and Biodiversity	● **3201-590** (Schurr) Combining Ecological Models and Data	○ **3201-620** (Schmieder) Vegetation and Soils of Centr. Europe ◖ **4905-470** (Martin) Biodiversity and Genetic Resources	○ **3101-570** (Herrmann) Field Course Soils and Vegetation ◖ **4906-440** (Graß) Agroecology and Biotic Resource Conservat.	○ **1916-400** (Mackenstedt) Pathogens, Parasites and their Hosts, Ecology, Molec. Interactions a. Evolution *(8 Pl. UHOH)* ◖ **3201-600** (Schurr) Intensive Course Landscape Ecology	○ **3101-420** (Herrmann) International Field Course Site Evaluation (September 2025) ◖ **3202-460** (Schweiger) Plant Ecology of Cultural Landscapes
M.Sc. Landscape Ecology	◖ **3201-590** (Schurr) Combining Ecological Modells and Data ◖ **3103-450** (Streck) Spatial Data Analysis with GIS ◖ **3102-460** (Kandeler) Molekulare Bodenökologie / Molecular Soil Ecology ◖ **3101-460** (Herrmann) Soils of the World - Formation, … *(only offered in odd years)*	◖ **3201-620** (Schmieder) Vegetation and Soils of Centr. Europe ◖ **4905-470** (Martin) Biodiversity and Genetic Resources ◖ **4906-430** (Graß) Field Course Agroecology and Biodiversity ○ **3102-440** (Kandeler) Environmental Pollution and Soil Organisms	◖ **3101-570** (Herrmann) Field Course Soils and Vegetation ◖ **4403-470** (Müller, J.) Renewable Energy for Rural Areas ~~◖ **4302-470** (Bieling) Landscape Change, Resilience, and Ecosystem Services~~ (not 2025) ◖ **4906-440** (Graß) Agroecology and Biotic Resource Conservation	● **3201-600** (Schurr) Intensive Course Landscape Ecology	○ **3101-420** (Herrmann) International Field Course Site Evaluation (September 2025) ◖ **3202-460** (Schweiger) Plant Ecology of Cultural Landscapes

Lecture Periods at UHOH

WS 24/25	**First day of unblocked modules:**	(42. KW) Monday, 14 Oct 2024
	First day of blocked modules:	(42. KW) Monday, 14 Oct 2024
	Last day of unblocked modules:	(5. KW) Saturday, 01 Feb 2025
	Last day of blocked modules:	(7. KW) Friday, 14 Feb 2025
SS 25	**First day of unblocked modules:**	(14. KW) Tuesday, 1 April 2025
	First day of blocked modules:	(14. KW) Tuesday, 1 April 2025
	Last day of unblocked modules:	(28. KW) Saturday, 12 July 2025
	Last day of blocked modules:	(30. KW) Friday, 25 July 2025

No lectures: All Saints' Day: Fr, 01 Nov 2024,
Christmas holidays: Mon, 23 Dec 2024 – Mon 06 Jan 2025,
Easter: Fri, 18 Apr – Mon, 21 Apr 2025,
International Labor Day: Thurs, 01 May 2025,
Ascension: Thurs, 29 May 2025,
Pentecost: Tues, 10 June 2025 – Sat, 14 Jun 2025 (excursions might take place during that week!),
Corpus Christi: Thurs, 19 Jun 2025.

Examination periods for the winter semester 2024/25:
1st examination period: Mon, 03 Feb – Fr, 21 Feb 2025
2nd examination period: Mon, 03 Feb – until 7 days before the second date
Examination periods for the summer semester 2025:
1st examination period: not yet defined
2nd examination period: not yet defined

See also: www.uni-hohenheim.de/en/semester-dates