

Translation

Unofficial version of the

**Examination Regulations for the Consecutive Master's Degree Program
"Agricultural and Food Economics" (AFECO)**

of the Faculty of Agriculture of the University of Bonn

Version: August 22, 2022

This unofficial version takes into account:

1. The Examination Regulations for the Consecutive Master's Degree Program "Agricultural and Food Economics" (AFECO) of the Faculty of Agriculture of the University of Bonn dated October 16, 2020 (Official Announcements of the University of Bonn, 50th year, no. 62, dated October 20, 2020)
2. The Amendment to the Examination Regulations for the Consecutive Master's Degree Program "Agricultural and Food Economics" (AFECO) of the Faculty of Agriculture of the University of Bonn dated August 22, 2022 (Official Announcements of the University of Bonn, 52nd year, no. 43, dated August 30, 2022)

Note: This unofficial version is only provided for informational purposes. Only the regulations published in the Official Announcements of the University of Bonn shall be legally binding.

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Part 1
Scope

§ 1
Scope

(1) Students who commence their studies in the consecutive master's degree program Agricultural and Food Economics at the University of Bonn after entry into force of these Examination Regulations are subject to these Examination Regulations.

(2) The Examination Regulations for the consecutive master's degree program Agricultural and Food Economics (AFECO) of the Faculty of Agriculture of the University of Bonn dated September 5, 2016 (Official Announcement of the University of Bonn, 46th year, no. 58, dated September 15, 2016) as last amended by the Third Amendment to the Examination Regulations for the Consecutive Master's Degree Program Agricultural and Food Economics (AFECO) of the Faculty of Agriculture of the University of Bonn dated October 16, 2020 (Official Announcement of the University of Bonn, 50th year, no. 61, dated October 20, 2020), hereinafter referred to as MPO AFECO 2016 will be repealed as of March 31, 2024. Examinations in accordance with MPO AFECO 2016 will be admissible until March 31, 2023. The examination board may extend this period by six months upon valid request.

(3) Students who, having commenced their studies prior to the coming into force of these Examination Regulations, are subject to MPO AFECO 2016 and have not yet completed all necessary examinations, may

- continue their studies under MPO AFECO 2016 until the deadline stated in para. 2; or
- irrevocably adopt these Examination Regulations by written request.

Students who continue their studies under MPO AFECO 2016 and do not graduate by March 31, 2023 shall adopt these Examination Regulations ex officio on April 1, 2023. Credit for prior academic achievements shall be granted. Para. 2 sentence 3 shall remain unaffected; these Examination Regulations shall then be adopted ex officio on October 1, 2023.

(4) The Examination Organization Regulations of the Faculty of Agriculture (POO-LWF), as amended, govern the subject-specific and administrative organization of examination procedures in this degree program.

(5) Students who enroll in the consecutive master's degree program Agricultural and Food Economics (AFECO) at the University of Bonn in winter semester 2022/2023 or later are subject to these Examination Regulations as amended by the amendment to these Examination Regulations (First Amendment to the Examination Regulations). Students who commenced their studies in the consecutive master's degree program Agricultural and Food Economics (AFECO) at the University of Bonn prior to winter semester 2022/2023 and have not yet completed the master's examination can complete elective modules they have already registered in and that were modified or dropped by the First Amendment to the Examination Regulations by September 30, 2023 in their original version in accordance with the Examination Regulations of October 16, 2020. The examination board will handle the completion of previously started examination procedures and the recognition of modules that are no longer included in the curriculum.

(6) If the Rectorate has made use of the authority to issue provisions concerning academic studies that it was granted under an ordinance issued based on § 82a HG, the provisions issued by the Rectorate shall supersede the corresponding provisions in these Examination Regulations for the period of validity stipulated in the ordinance.

Part 2
Academic degree

§ 2

Academic degree

Candidates who successfully complete the master's examination for the Agricultural and Food Economics degree program shall be awarded a Master of Science (MSc) degree by the Faculty of Agriculture of the University of Bonn. Students participating in student exchanges under partnership agreements are subject to the conditions stipulated in the agreements. The credit points for the master's thesis supervised by both partner universities can therefore also be recognized by the partner university where primary supervision of the master's thesis takes place. Both partner universities award their respective academic degrees.

Part 3

Admission requirements, program structure and module examinations (registration/withdrawal)

§ 3

Degree program admission requirements

- (1) The consecutive master's degree program Agricultural and Food Economics is open to applications from graduates from a university undergraduate degree program in the field of agricultural sciences, agribusiness, agricultural management, agricultural economics, nutrition and food sciences, economics or a related field.
- (2) The university degree in para. 1 must provide proof of an average grade of at least 2.5 or a comparable classification in another grading system. In addition, proof must be provided that at minimum of 42 ECTS CP have been earned from modules focusing on economics (including the bachelor's thesis), including at least 5 ECTS CP earned in the area of microeconomics and at least 5 ECTS CP earned in the area of statistics.
- (3) English skills at level B2 or higher according to the Common European Framework of Reference for Languages (CEFR) are a prerequisite for admission to the degree program and to be proved by submitting a recognized language certificate (e.g. TOEFL, IELTS) or equivalent proof.
- (4) Foreign students who are not given equivalent status to Germans by or based on international treaties must provide proof that they have passed the aptitude test for university studies (in accordance with Annex 2).
- (5) This does not affect admission restrictions due to capacity limits (*numerus clausus*).
- (6) The selection of successful applicants is subject to the Regulations on Selection Procedures for Degree Programs with Admission Restrictions of the University of Bonn.
- (7) Students who do not meet the admission requirements stated in paras. 1 and 2, may already enroll for a master's degree program if there is sufficient proof of their aptitude for that degree program, which is determined with special regard to the average grade for all examinations taken to that point. Enrollment is revoked with effect for the future if necessary proof of meeting the admission requirements is not submitted to the admission office within six months after the date of enrollment.

§ 4

Standard period of study, ECTS credit point system, range of courses, program structure and language of instruction/examinations

- (1) The standard period of study, including the master's thesis, is four semesters (120 ECTS CP) when pursuing the degree program full-time.
- (2) The degree program includes 30 ECTS CP for general compulsory modules for all students and in:
 - Option a. with a possible major track:
 - 60 ECTS CP for subject-specific and/or free elective modules (including 6 ECTS CP for a research seminar)
 - 30 ECTS CP for the master's thesis
 - Option b. with a practical orientation:
 - 42 ECTS CP for practice-oriented compulsory modules in the chosen major track (mandatory internship (6 ECTS CP), practice-oriented research seminar (6 ECTS CP) and practice-oriented master's thesis (30 ECTS CP))
 - 30 ECTS CP for subject-specific elective modules in the chosen major track
 - 18 ECTS CP for subject-specific and/or free elective modules

A maximum of 12 ECTS CP may be earned for free elective modules. Details on modules, admission to courses and the amount of ECTS credit points per module are set forth in the module structure (Annex 1).

- (3) Specializations in the form of a "major specification" or "minor specification" can be chosen if the requirements specified in the module structure are satisfied. Notwithstanding sentence 1, for a practice-oriented program, one of the four major tracks (Agribusiness, Agricultural and Development Policy, Resource and Environmental Economics or Market and Consumer Research) must be indicated as a "practice-oriented major specification" no later than the end of the second program-related semester.
- (4) The language of instruction and examinations is English. The examination board may make exceptions for individual elective modules and shall announce them in due time before the beginning of the semester, pursuant to § 8, para. 8 of the POO-LWF.
- (5) A vocational internship is recommended to complement the academic training.
- (6) The degree program starts in both the summer and winter semesters of each year.

§ 5

Module examinations—registration and withdrawal

- (1) Students who have withdrawn from a module examination in accordance with § 12, para. 3 of the POO-LWF must register electronically again with the examination board for the module examination. Where justified, registrations may be submitted in writing.
- (2) Students should register to resit a failed module examination on the next scheduled examination date themselves.
- (3) In all other respects, the provisions of § 12 of the POO-LWF shall apply.

Part 4

Resitting examinations and pass requirements for the master's examination

§ 6

Resitting examinations

- (1) Examinations that have been failed may only be repeated twice. Resits shall be conducted in accordance with § 5, para. 2. Rules for repetition of the master's thesis are defined in § 23, para. 7 of the POO-LWF.
- (2) Students who fail the same compulsory module three times lose their right to examination and are deregistered from the degree program by the Student Registry once the examination board's decision that the final attempt at the master's examination has been failed has come into force.
- (3) If an elective module has been failed, or the final attempt at an elective module has been failed, the candidate can choose another, previously unchosen elective module as compensation. Such compensation is only possible twice. Students who use the compensation option without success shall lose their right to examination and are deregistered from the degree program by the Student Registry once the examination board's decision that the final attempt at the master's examination has been failed has come into force.
- (4) Module examinations graded "sufficient" or higher cannot be repeated.
- (5) For modules with examinations that are taken during the semester or that are part of a course, the examination cannot be repeated in the same semester. The module examination in such modules can only be repeated by retaking the entire module or corresponding course. The examination board shall announce the respective examinations and course work to be repeated before the beginning of the semester, pursuant to § 8, para. 8 of the POO-LWF.

§ 7

Pass requirements for the master's examination

- (1) Candidates shall have passed the master's examination when they have passed all necessary modules as per § 4, para. 2 as well as the master's thesis and have thus been awarded a total of 120 ECTS CP.
- (2) The final attempt at the master's examination shall be deemed failed when
 - the candidate has failed to pass a compulsory module three times, as specified in § 6, para. 2;
 - the compensation option for electives has been used without success as specified in § 6, para. 3; or
 - the master's thesis has been graded "insufficient" in the second attempt in accordance with § 23, para. 7 of the POO-LWF.

Part 5

Entry into force

§ 8

Entry into force and publication

These Examination Regulations shall enter into force on the day after their publication among the Official Announcements of the University of Bonn.

Annex 1: Module structure for the consecutive master's degree program Agricultural and Food Economics (AFECO)

Module structure key:

- Abbreviations of course types: F = field trip, extl = external internship, I = internship, Proj = project, PS = proseminar, S = seminar, E = scientific exercise, L = lecture.
- Marked with asterisk (*): courses that require compulsory attendance as a prerequisite for participation in the module examination in accordance with § 13, para. 6 of the POO-LWF. In these cases, compulsory attendance is an additional requirement to the other coursework listed.
- The "Course Type" column shows the type of a course within the module.
- The "Duration/Program-Related Semester" column shows the duration (D) of the module (in semesters) and assigns it to a specific program-related semester (PRS).
- The "Coursework" column shows requirements that must be met for admission to certain examinations pursuant to § 13, para. 4 of the POO-LWF or, respectively, to acquire ECTS credit points in modules without an examination.

Further details on individual modules, especially regarding the courses offered within or required for completion of a module, are described in the module guide, which the examination board will make available before the beginning of the respective semester, pursuant to § 8, para. 8 of the POO-LWF.

General compulsory modules (30 ECTS CP)

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
BAS-110	Extended Methods of Empirical Research	L, E*	None	D: 2 PRS: 1 st +2 nd	<p>After completing the module, students will be able to</p> <ul style="list-style-type: none"> - describe ethical codes in empirical research; - explain the concepts of statistical distribution theory and understand Bayes' theorem; - understand the theoretical basics of linear regression and logistic regression; - prepare data for analysis and perform empirical research using OLS; - generate and test hypotheses (t-test, F-test and Anova) and interpret p-values; - perform a trend analysis for typical time series data along the agri-food chain; - interpret statistical software output; - explain major epistemological approaches in the social sciences, different types of scientific thinking, the basic assumptions of critical rationalism and the positivism dispute; - describe the key aspects and quality criteria of qualitative research and how it differs from quantitative research; - summarize different methods of qualitative research; - discuss a research topic in a group, develop a qualitative survey and use a grounded theory approach to analyze interview data; - interpret, reflect on and present study results. 	<p>Contributions to group and team work, e.g. research questions, interview guides, reports or term papers, presentations. Contributions will be verified using a common group work report.</p>	<p>Written examination [67%]</p> <p>Assignment [33%]</p>	9

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
BAS-120	Excursion in Agricultural and Food Economics (field trip)	F*, S*	None	D: 2 PRS: 1 st +2 nd	After completing the module, students will be able to - identify the main sector-relevant issues; - present sector-relevant information in condensed form; - discuss future sector-relevant challenges; - combine information from different perspectives and modules in order to explain real situations in agriculture, the food chain and rural areas and discuss future challenges; - put knowledge into practice.	- Proof of field trips lasting a total of 5 days - Two presentations before the field trip: one poster presentation and one free-format presentation	None	6
BAS-130	Microeconomics	L, E	None	D: 1 PRS: 1 st	After completing the module, students will be able to - explain the neoclassical theory of supply, demand and markets at a formal mathematical level; - formulate and solve unconstrained and constrained optimization problems and use optimization tools to solve quantitative economic problems; - analyze the description of economic decision-making problems and choose and apply a suitable tool from a number of possibilities; - apply calculus and spreadsheet tools to economic decision-making problems.	None	Written examination [50%] Assignment [50%]	6

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
BAS-140	Organizational Management	L	None	D: 1 PRS: 1 st	<p>After completing the module, students will be able to</p> <ul style="list-style-type: none"> - recall and describe the main theories forming the pillars of management and organization; - compare various theoretical approaches and viewpoints and recognize differences and similarities among them; - extract relevant information from scientific literature and relate practical industrial cases to the theory; - summarize and discuss scientific management literature; - illustrate the areas of application of various theories and give examples; - identify management problems, find possible solutions and formulate an action strategy; - illustrate case studies and relate management theories to examples from the real world; - choose and apply the most appropriate strategic tools for practical management cases; - summarize scientific articles and present them in class; - compare different theoretical management approaches. 	None	<p>Presentation [33%]</p> <p>Assignment [67%]</p>	6

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
BAS-150	Risk Management in the Agribusiness	L, E	None	D: 1 PRS: 2 nd	<p>After completing the module, students will be able to</p> <ul style="list-style-type: none"> - identify different risk types affecting the agricultural and food sector, discuss various risk measures and explain appropriate risk management instruments; - identify the most important risk management instruments in agriculture and the food value chain; - apply quantitative techniques to handle risk management tasks; - calculate risk measures using data from example farms, identify risk factors and choose appropriate risk management instruments; - assess a farm's risk based on the risk measures introduced and identified risk factors and develop appropriate risk management strategies for the operation; - use risk modeling instruments to integrate risk management strategies into a farm production program based on identified risk factors; - critically discuss sources of error and challenges in the understanding of risk and applicable strategies along the food value chain. 	None	<p>Written examination [75%]</p> <p>Presentation [25%]</p>	3

Practice-oriented compulsory modules in the Agribusiness major track (42 ECTS CP)

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
ILR-02	Mandatory Internship	I	None	D: 1 PRS: 3 rd	After completing the module, students will - be able to apply theoretical knowledge in a professional work environment; - have acquired knowledge and skills in the working world; - be able to present their experiences to others; - be able to better reflect on their own expectations and experiences; - be able to incorporate practical experience into scientific research.	Presentation and report	None	6
ABS-331	Practice-Oriented Research Seminar in Agribusiness	S*	48 ECTS CP (incl. internship module ILR-02)	D: 1 PRS: 3 rd	After completing the module, students will be able to - describe the problem background for a chosen practice-oriented topic after conducting a literature review; - derive a practice-oriented research question or testable hypothesis from a problem description; - assess, select and compare current research articles in a relevant field; - determine an appropriate methodology relevant to the practice-oriented research question(s); - develop the concept for their practice-oriented master's thesis, including the work plan and expected results.	None	Seminar talk	6

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
M-402	Practice-Oriented Master's Thesis		Students must be registered in module ABS-331 and have completed at least 60 ECTS CP	D: 1 PRS: 4 th	<p>After completing the module, students will be able to</p> <ul style="list-style-type: none"> - work independently and efficiently; - handle feedback from supervisors; - define a practice-oriented research question; - build a sound theoretical and methodological framework; - collect data systematically and verifiably; - analyze data critically and correctly; - formulate sound conclusions based on a comprehensive discussion of the results; - write a comprehensive, consistent and concise practice-oriented thesis. <p>Candidates shall have a minimum of two and a maximum of six months for completion.</p>	None	Master's thesis	30

Practice-oriented compulsory modules in the Agricultural and Development Policy major track (42 ECTS CP)

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
ILR-02	Mandatory Internship	I	None	D: 1 PRS: 3 rd	After completing the module, students will - be able to apply theoretical knowledge in a professional work environment; - have acquired knowledge and skills in the working world; - be able to present their experiences to others; - be able to better reflect on their own expectations and experiences; - be able to incorporate practical experience into scientific research.	Presentation and report	None	6
APO-331	Practice-Oriented Research Seminar in Agricultural and Development Policy	S*	48 ECTS CP (incl. internship module ILR-02)	D: 1 PRS: 3 rd	After completing the module, students will be able to - describe the problem background for a chosen practice-oriented topic after conducting a literature review; - derive a practice-oriented research question or testable hypothesis from a problem description; - assess, select and compare current research articles in a relevant field; - after evaluating alternative approaches, determine an appropriate methodology for the practice-oriented research question(s); - develop the concept for their practice-oriented master's thesis, including the work plan and expected results.	None	Term paper [67%] Presentation [33%]	6

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
M-402	Practice-Oriented Master's Thesis		Students must be registered in module APO-331 and have completed at least 60 ECTS CP	D: 1 PRS: 4 th	<p>After completing the module, students will be able to</p> <ul style="list-style-type: none"> - work independently and efficiently; - handle feedback from supervisors; - define a practice-oriented research question; - build a sound theoretical and methodological framework; - collect data systematically and verifiably; - analyze data critically and correctly; - formulate sound conclusions based on a comprehensive discussion of the results; - write a comprehensive, consistent and concise practice-oriented thesis. <p>Candidates shall have a minimum of two and a maximum of six months for completion.</p>	None	Master's thesis	30

Practice-oriented compulsory modules in the Resource and Environmental Economics major track (42 ECTS CP)

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
ILR-02	Mandatory Internship	I	None	D: 1 PRS: 3 rd	After completing the module, students will - be able to apply theoretical knowledge in a professional work environment; - have acquired knowledge and skills in the working world; - be able to present their experiences to others; - be able to better reflect on their own expectations and experiences; - be able to incorporate practical experience into scientific research.	Presentation and report	None	6
ENV-331	Practice-Oriented Research Seminar in Resource and Environmental Economics	S*	48 ECTS CP (incl. internship module ILR-02)	D: 1 PRS: 3 rd	After completing the module, students will be able to - summarize the scientific state of the art in a self-selected practice-oriented field of research; - build a conceptual framework for the social sciences/environmental economics; - prepare and present a practice-oriented research proposal; - participate in scientific debates.	None	Term paper [60%] Presentation [40%]	6
M-402	Practice-Oriented Master's Thesis		Students must be registered in module ENV-331 and have completed at least 60 ECTS CP.	D: 1 PRS: 4 th	After completing the module, students will be able to - work independently and efficiently; - handle feedback from supervisors; - define a practice-oriented research question; - build a sound theoretical and methodological framework; - collect data systematically and verifiably; - analyze data critically and correctly; - formulate sound conclusions based on a comprehensive discussion of the results; - write a comprehensive, consistent and concise practice-oriented thesis. Candidates shall have a minimum of two and a maximum of six months for completion.	None	Master's thesis	30

Practice-oriented compulsory modules in the Market and Consumer Research major track (42 ECTS CP)

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
ILR-02	Mandatory Internship	I	None	D: 1 PRS: 3 rd	After completing the module, students will - be able to apply theoretical knowledge in a professional work environment; - have acquired knowledge and skills in the working world; - be able to present their experiences to others; - be able to better reflect on their own expectations and experiences; - be able to incorporate practical experience into scientific research.	Presentation and report	None	6
MAC-331	Practice-Oriented Research Seminar in Market and Consumer Research	S*	48 ECTS CP (incl. internship module ILR-02)	D: 1 PRS: 3 rd	After completing the module, students will be able to - prepare a synthesis of the current state of research in the field of their practice-oriented research project; - select and understand appropriate theories for their practice-oriented research project; - know how to derive testable hypotheses or research questions from relevant theoretical models and a review of the relevant literature; - use an appropriate methodology for their practice-oriented research project; - plan a practice-oriented research project; - lead and moderate a scientific discussion; - provide examples for a number of research topics in the field and explain the results.	None	Term paper [67%] Presentation [33%]	6

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
M-402	Practice-Oriented Master's Thesis		Students must be registered in module MAC-331 and have completed at least 60 ECTS CP.	D: 1 PRS: 4 th	<p>After completing the module, students will be able to</p> <ul style="list-style-type: none"> - work independently and efficiently; - handle feedback from supervisors; - define a practice-oriented research question; - build a sound theoretical and methodological framework; - collect data systematically and verifiably; - analyze data critically and correctly; - formulate sound conclusions based on a comprehensive discussion of the results; - write a comprehensive, consistent and concise practice-oriented thesis. <p>Candidates shall have a minimum of two and a maximum of six months for completion.</p>	None	Master's thesis	30

Subject-specific electives

(Modules worth 48 to 60 ECTS CP or, for a practice-oriented program, 36 to 48 ECTS CP must be completed.)

Due to the diversity of career opportunities along the food chain for agricultural and food economists, the subject-specific electives are grouped into four major tracks:

- Agribusiness (ABS)
- Agricultural and Development Policy (APO)
- Resource and Environmental Economics (ENV)
- Market and Consumer Research (MAC)

Major specification:

Students who select modules worth at least 30 ECTS CP from one of the major tracks indicated above, take the associated research seminar (6 ECTS CP) and write their master's thesis (30 ECTS CP) in this major track can, upon request, have the major track indicated as a "major specification" on their degree certificate. This does not apply to students who have chosen a practice-oriented program in accordance with § 4, para. 2, sentence 1, lit. b, with practice-oriented compulsory modules in their chosen major track; for these students, the major track they chose is automatically indicated as the "practice-oriented major specification" on their degree certificate.

Minor specification:

Students who select modules worth at least 18 ECTS CP from one of these four major tracks can, upon request, have a "minor specification" indicated on their degree certificate. The same applies to additional minor specifications in

- Development Economics (DEV) with 18 ECTS CP from the following modules: APO-260, APO-240 and ENV-130
- Agroeconomic Modeling (MOD) with 18 ECTS CP from the following modules: APO-250, APO-220, APO-230 and ENV-240

Each course can only be used once, i.e. either for a major specification or a minor specification.

The examination board may approve further subject-specific and free elective modules and shall announce them before the beginning of the semester pursuant to § 8, para. 8 of the POO-LWF.

Free elective modules worth a maximum of 12 ECTS CP can be chosen.

Major or minor in Agribusiness (ABS)

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
ABS-100	Financial Accounting	L, E	None	D: 1 PRS: 1 st	After completing the module, students will be able to - solve accounting tasks; - refer to the legal framework for accounting; - analyze annual financial statements; - determine key figures (financial ratios) using annual financial statements; - assess the economic situation of a company.	Presentation	Written examination [75%] Seminar talk [25%]	6
ABS-120	Methods in Management Research	L	None	D: 1 PRS: 3 rd	After completing the module, students will be able to - identify and typify relevant research problems for various contexts in the agribusiness sector; - independently compare and distinguish between different types of research methods; - implement research problems and methods to obtain accurate and informative results; - analyze (qualitative or quantitative) data and discuss important findings of their research; - assess and justify their choice of research methods for answering research questions; - independently conduct studies, from formulation of their research questions to discussion of the results.	None	Assignment [50%] Written examination [50%]	6

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
ABS-130	Investment and Financing	L, E	None	D: 1 PRS: 3 rd	<p>After completing the module, students will be able to</p> <ul style="list-style-type: none"> - structure investment and financing projects for evaluation of their profitability; - evaluate investment projects with respect to profitability and financing; - identify risks in investment projects; - quantify risks in investment projects; - assess the risk of investment projects using standard spreadsheet software; - apply the concepts to realistic complex examples, evaluate the results and prepare decision-making support for a potential investor; - discuss critical assumptions in models for preparing decision-making support for investments. 	None	Written examination	6

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
ABS-150	Process Based Management	L, Proj	None	D: 1 PRS: 1 st /3 rd	After completing the module, students will be able to <ul style="list-style-type: none"> - define objectives for process optimization; - assess the impact of objectives on process design; - outline the phases of process management; - describe the rules and functions of various process modeling techniques; - use different modeling techniques to model business processes; - understand enterprise architecture management; - outline the reasoning, construction and functioning of business process models; - demonstrate the concept of business process maturity models; - recognize the link between enterprise architecture and business processes; - prepare, analyze and optimize process simulation models; - apply techniques to measure process performance; - describe process management concepts (re-design, continuous improvement). 	None	Written examination	6
ABS-210	Agricultural Production Economics	L, E	None	D: 1 PRS: 1 st	After completing the module, students will be able to <ul style="list-style-type: none"> - recall relevant theories and methods of production; - identify core farm management tasks and production-related problems in agricultural production; - apply relevant theories and associated farm management and planning tools; - apply various methods for productivity analysis and farm optimization; - use appropriate management tools to develop optimal solutions for typical farm management tasks; - discuss the solutions provided by the tools. 	None	Written examination	6

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
ABS-230	Strategic Technology and Innovation Management	L	BAS-140 Organizational Management	D: 1 PRS: 2 nd	<p>After completing the module, students will be able to</p> <ul style="list-style-type: none"> - interpret, explain and summarize relevant issues and stages of new product management and development; - characterize and classify different forms and types of innovations in the agribusiness context; - execute and apply company and technology forecasting tools, such as patent analysis; - differentiate and attribute types of innovation strategies and their fit within specific organizational structures; - summarize and organize the challenges and opportunities of open innovation in the agribusiness context, including with regard to the management of intellectual property; - summarize, provide examples of and compare and contrast the various ways to structure innovation processes; - classify and differentiate the various sources of innovative ideas as well as their relative suitability for different types of projects and within different organizations; - critically apply and evaluate conceptual tools and frameworks to analyze relevant cases from the agricultural industry; - generate and evaluate potential business models and use design-thinking approaches to evaluate the needs of customers in the agribusiness context. 	Project report	<p>Report [30%]</p> <p>Oral examination [70%]</p>	6

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
ABS-300	Seminar Production Economics and Farm Management	S	Written examination must be passed for module BAS-110 and one of the modules BAS-130 or ABS-210	D: 1 PRS: 2 nd	After completing the module, students will be able to - apply relevant theories and methods in the field of production economics, productivity and efficiency analysis to agricultural production and food processing problems; - apply research techniques, such as structuring a planning problem, data acquisition and data management; - develop and assess research designs in order to answer specific research questions using appropriate quantitative methods; - set up and implement an empirical evaluation framework, e.g. an efficiency analysis, to answer a research question; - discuss empirical results and relate them to current academic literature and discuss and derive policy implications.	None	Seminar talk	6
ABS-310	Seminar in Innovation Management and Entrepreneurship	S	BAS-140 Organizational Management	D: 1 PRS: 2 nd	After completing the module, students will be able to - identify significant scientific literature and relate it to a specific topic; - understand and classify different findings from the scientific literature; - collect and organize scientific content to produce an original contribution both in the form of a presentation and a paper; - lead and moderate a discussion about leading edge topics; - prepare a scientific review.	None	Seminar talk	6

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
ABS-320	Special Project in Technology and Innovation Management	PS	BAS-140 or ABS-230 must be passed with a grade of 1.3 or better.	D: 1 PRS: 2 nd /3 rd	After completing the module, students will be able to - acquire knowledge of selected technology and innovation management issues; - enhance their understanding of managerial and strategic concepts; - acquire skills in literature and data analysis; - apply theories, tools and methods from the area of innovation management to current social and economic debates.	None	Project report	6
ABS-340	Special Project in Production Economics	PS	ABS-210 must be passed with a minimum grade of 1.3 or APO-230 with a minimum grade of 1.7.	D: 1 PRS: 2 nd /3 rd	After completing the module, students will be able to - define a research question; - work independently; - develop an analytical framework; - handle feedback from supervisors; - discuss results, identify shortcomings of the approach used and identify potential solutions.	None	Project report	6
ABS-350	Evidence-Based Agricultural Policy Impact Analysis: Causal Effects and Policy Design	S	None	D: 1 PRS: 3 rd	After completing the module, students will be able to - gain an understanding of the cause and effect paths of agricultural policy instruments; - explain the quantitative techniques that were covered for estimating causal impact; - distinguish between different concepts of causality when evaluating agricultural policy; - structure and organize large data sets to perform an analysis of causal effects with different methods for causal inference using the software programming knowledge learned; - derive research questions based on the current literature in this area and develop procedures and research designs to test these hypotheses.	Assignments	Written examination	6

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
ENV-240	Bio-Economic Modeling at Farm Scale	L	None	D: 1 PRS: 3 rd	After completing the module, students will be able to - outline the building blocks of farm-scale bioeconomic models and describe the interactions within and between various sub-systems in a farm as expressed in a formal optimization model; - write simple or more complex farm-scale bioeconomic models in the software package GAMS; - use microeconomic theory to analyze the results of such a model; - evaluate the impact of drivers of farm management decisions, such as changes in input/output prices or farm-scale policies on economic and environmental indicators based on the application of a bioeconomic model; - provide a short report summarizing these impacts in the term paper.	None	Term paper	6
ENV-270	Data Wrangling, Visualization and GIS Data Analysis with R	L, E	Recommended: Experience with R (programming)	D: 1 PRS: 2 nd	After completing the module, students will - understand the peculiarities of different data formats and how to use them; - understand the basics of GIS; - be able to work with various data in R; - be able to visualize various data in R; - be able to perform spatial analyses with data in various formats; - be able to apply the packages and methods they have learned to their own case studies; - be able to perform their own analyses and visualize publication-ready maps.	None	Report [50%] Presentation [50%] Admission requirement for the presentation: all reports submitted	6

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
MAC-100	Food Marketing	L, E	None	D: 1 PRS: 3 rd	After completing the module, students will be able to - describe relevant psychological and sociological constructs to understand the impact of marketing; - survey the competitive conditions in food markets with a focus on German food markets; - name the marketing fields of action and opportunities for applying instruments in the competitive environment of food markets; - explain the differences in the impact of marketing strategies depending on the market environment (e.g. market structure); - analyze consumer reactions based on psychological and sociological constructs; - analyze developments in food value chains; - develop and implement marketing strategies at the company level in a highly competitive environment; - analyze and interpret market information based on research studies; - present, discuss and defend implemented marketing strategies.	None	Written examination [60%] Presentation [40%]	6
ABS-330	Research Seminar in Agribusiness	S*	48 ECTS CP	D: 1 PRS: 3 rd	After completing the module, students will be able to - describe the problem background for a chosen topic after conducting a literature review; - derive a research question or testable hypothesis from a problem description; - assess, select and compare current research articles in a relevant field; - determine an appropriate methodology relevant to the research question(s); - develop the concept for their master's thesis, including the work plan and expected results.	None	Seminar talk	6

Major or minor in Agricultural and Development Policy (APO)

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
APO-110	European and International Agricultural Policy	L, E	None	D: 1 PRS: 1 st /3 rd	After completing the module, students will be able to - recall the agricultural policy portfolios of important global players; - critically discuss the results of different existing studies taking into account the assumptions made; - use economic theory to analyze example agricultural policies; - select and apply relevant economic theories to real policy issues.	None	Assignment [50%] Oral examination [50%]	6
APO-120	Applied Trade Theory and Policy	L, E	None	D: 1 PRS: 3 rd	After completing the module, students will be able to - explain the principles of classical and new economic theories of international trade that determine trade patterns between countries; - identify the limitations of the theories and apply them to predefined research problems in the field of agricultural and food trade; - independently assess the trade and welfare impacts of trade policies in the context of exercises; - assess the contributions and limitations of academic literature for trade issues; - use spreadsheets and formal analytics to solve economic trade problems.	None	Assignment	6

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
APO-260	Food Security and Sustainable Food Systems	L	None	D: 1 PRS: 3 rd	After completing the module, students will be able to - define key terms related to food security and sustainable diets; - explain how food systems relate to the different Sustainable Development Goals (SDGs); - identify policy needs and analyze the sustainability implications of specific interventions; - evaluate the arguments in the public debate concerning sustainable agriculture and nutrition; - prepare and use dietary surveys and nutrition assessment tools.	None	Written examination	6
APO-220	Applied Modeling of Agricultural Systems	Proj	None	D: 1 PRS: 3 rd	After completing the module, students will be able to - apply a policy-related equilibrium model; - analyze a real policy question using quantitative tools; - assess the impact of policy changes on quantities, prices and welfare based on their use in the chosen and expanded equilibrium model; - summarize these impacts in a presentation for the client and jointly document and comment on them in a larger report.	None	Seminar talk [50%] Report [50%]	6
APO-230	Advanced Applied Econometrics	L, E	Written examination must be passed for module BAS-110.	D: 1 PRS: 2 nd	After completing the module, students will be able to - correctly interpret excerpts from econometric textbooks and articles; - apply matrix algebra in the context of statistics; - apply econometric methods to estimate quantitative economic models derived from economic theory; - select appropriate econometric methods based on an analysis of the data situation and research question; - correctly use and interpret the output from econometric software packages.	None	Assignment	6

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
APO-240	Development Economics	L, E	None	D: 1 PRS: 2 nd	After completing the module, students will be able to - describe key concepts and the structure of economic growth models and drivers of socio-economic development; - explain the role of institutions, labor markets, migration and sustainable natural resource management for economic development; - apply the concepts that have been learned to the analysis of development policies; - compare methods for researching sustainable natural resource management topics; - evaluate empirical examples using case studies; - generalize lessons learned from case studies to broader development issues.	None	Written examination	6
APO-250	Partial and General Equilibrium Modeling	L	None	D: 1 PRS: 2 nd	After completing the module, students will be able to - outline the building blocks of partial and general equilibrium models and describe the interactions within and between these building blocks as expressed in their equations; - change equilibrium models in the software package GAMS and perform counterfactual analyses; - use microeconomic theory, their knowledge of agricultural and food markets and, more generally, their knowledge of the economic system to analyze the results of such models; - assess the impact of policy changes on quantities, prices and welfare based on their use in equilibrium models; - provide a short report summarizing these impacts in the term paper.	None	Term paper	6

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
APO-300	Seminar Policy Analysis	S	None	D: 1 PRS: 3 rd	After completing the module, students will be able to - identify and apply relevant theories and methods in the field of economic policy analysis to policy issues related to the agricultural and food sector; - correctly apply research techniques such as the structuring of research papers, literature searches, referencing and technical writing; - present research results using appropriate techniques and efficiently moderate a scientific discussion; - develop and assess research designs in order to answer specific research questions using appropriate qualitative or quantitative methods; - discuss research results, relate them to recent academic literature and derive policy implications.	None	Term paper [67%] Presentation [33%]	6
APO-310	Special Project in Agricultural and Development Policy	PS	Two of the following modules: APO-110, APO-230, APO-240, APO-250 must be passed with an average grade of 1.3 or better.	D: 1 PRS: 2 nd /3 rd	After completing the module, students will be able to - explain a selected policy issue correctly and in detail; - select and use theories and appropriate qualitative or quantitative analysis tools to answer a specific policy-related research question; - evaluate alternative options for analyzing policies or evaluate alternative policies with respect to economic impacts; - summarize the academic literature and their own research work to contribute to a current policy debate and identify research gaps that still exist.	None	Project report	6

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
ABS-350	Evidence-Based Agricultural Policy Impact Analysis: Causal Effects and Policy Design	S	None	D: 1 PRS: 3 rd	After completing the module, students will be able to - gain an understanding of the cause and effect paths of agricultural policy instruments; - explain the quantitative techniques that were covered for estimating causal impact; - distinguish between different concepts of causality when evaluating agricultural policy; - structure and organize large data sets to perform an analysis of causal effects with different methods for causal inference using the software programming knowledge learned; - derive research questions based on the current literature in this area and develop procedures and research designs to test these hypotheses.	Assignments	Written examination	6
APO-330	Research Seminar in Agricultural and Development Policy	S*	48 ECTS CP	D: 1 PRS: 3 rd	After completing the module, students will be able to - describe the problem background for a chosen topic after conducting a literature review; - derive a research question or testable hypothesis from a problem description; - assess, select and compare current research articles in a relevant field; - after evaluating alternative approaches, determine an appropriate methodology for the research question(s); - develop the concept for their master's thesis, including the work plan and expected results.	None	Term paper [67%] Presentation [33%]	6

Major or minor in Resource and Environmental Economics (ENV)

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
ENV-100	Economics on Sustainability	L, E	None	D: 1 PRS: 1 st	After completing the module, students will be able to - define the basic concepts of sustainability and ecological and environmental economics; - translate welfare functions into preferences and vice versa; - interpret economic models and their assumptions; - apply economic theory to environmental economics problems (e. g. renewable resources); - evaluate the pros and cons of different policies; - apply economic theory to real world problems; - systematically organize their arguments in the form of essays; - extract the core ideas of scientific articles; - discuss scientific articles.	None	Written examination	6
ENV-110	Environmental Economics and Policies	L, E	None	D: 1 PRS: 2 nd	After completing the module, students will be able to - use neoclassical and institutional economics to analyze environmental policy; - discuss complex issues of economic theory; - identify the implicit assumptions of certain economic approaches; - systematically organize their arguments; - apply the concepts learned to new policy fields; - compare different research approaches to empirical questions.	None	Written examination	6
ENV-130	Impact Evaluation of Conservation & Development Projects and Environmental Policies	L, E	None	D: 1 PRS: 2 nd	After completing the module, students will - know alternative quantitative evaluation methods and their underlying assumptions; - understand how different types of selection effects impact development and conservation initiatives; - be able to apply selected evaluation methods to real world problems; - be able to critically interpret the findings from evaluation studies.	None	Assignment	6

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
ENV-210	Advanced Environmental Economics	L, E	None	D: 1 PRS: 3 rd	After completing the module, students will be able to - identify alternative theoretical approaches in environmental and resource economics; - understand the effects of assumptions in formal economic models on real world applications; - apply theory and numerical techniques to solve common problems in environmental and resource economics.	None	Oral examination	6
ENV-220	Agricultural and Agri-Environmental Law	L	None	D: 1 PRS: 3 rd	After completing the module, students will be able to - outline the legal system formed by agricultural and agri-environmental legislation in Europe, Germany and the German states; - describe how the above legislation is developed, adopted and enacted; - assess the legal bases for the primary production of food; - explain how European, German and German state law work together; - develop solutions for the above legislation in practical cases; - list the civil law that is important for the agricultural industry; - list the commercial and corporate law that is important for the agricultural industry; - compare the law applicable in agricultural areas in two different German states.	None	Written examination	6

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
ENV-240	Bio-Economic Modeling at Farm Scale	L	None	D: 1 PRS: 3 rd	After completing the module, students will be able to - outline the building blocks of farm-scale bioeconomic models and describe the interactions within and between various sub-systems in a farm as expressed in a formal optimization model; - write simple or more complex farm-scale bioeconomic models in the software package GAMS; - use microeconomic theory to analyze the results of such a model; - evaluate the impact of drivers of farm management decisions, such as changes in input/output prices or farm-scale policies on economic and environmental indicators based on the application of a bioeconomic model; - provide a short report summarizing these impacts in the term paper.	None	Term paper	6
ENV-270	Data Wrangling, Visualization and GIS Data Analysis with R	L, E	Recommended: Experience with R (programming)	D: 1 PRS: 2 nd	After completing the module, students will - understand the peculiarities of different data formats and how to use them; - understand the basics of GIS; - be able to work with various data in R; - be able to visualize various data in R; - be able to perform spatial analyses with data in various formats; - be able to apply the packages and methods they have learned to their own case studies; - be able to perform their own analyses and visualize publication-ready maps.	None	Report [50%] Presentation [50%] Admission requirement for the presentation: all reports submitted	6

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
ENV-300	Seminar on Environmental Economics and Policy	S*	None	D: 1 PRS: 3 rd	After completing the module, students will be able to - deepen their knowledge of selected environmental policy issues; - understand advanced concepts for environmental policy analysis; - apply environmental and ecological economic concepts to current policy debates; - analyze quantitative and qualitative data using empirical methods from environmental economics; - summarize complex debates on environmental policy design.	None	Term paper [50%] Presentation [30%] Project report [20%]	6
ENV-310	Special Project in Environmental Economics	PS	ENV-100 and ENV-110 and ENV-130 must be passed with a grade better than 1.7.	D: 1 PRS: 2 nd /3 rd	After completing the module, students will be able to - deepen their knowledge of selected environmental policy issues; - understand advanced environmental and ecological economic concepts; - apply environmental and ecological economic concepts to current policy debates; - apply advanced skills in literature and data analysis; - summarize complex debates on environmental policy design.	None	Project report	6
ENV-260	Sustainability and Risk	L	None	D: 1 PRS: 3 rd	After completing the module, students will be able to - understand and evaluate relevant details, their interrelationships and the overall interdisciplinary picture with regard to the concepts of sustainability and risk; - identify and assess the drivers of, and barriers to, sustainable development; - analyze concrete (or local) issues of sustainability and risk from the perspective of various social actors and find solutions by applying established generic (or global) tools; - critically reflect on all the models, instruments etc. discussed during the course.	None	Written examination	6

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
ABS-350	Evidence-Based Agricultural Policy Impact Analysis: Causal Effects and Policy Design	S	None	D: 1 PRS: 3 rd	After completing the module, students will be able to - gain an understanding of the cause and effect paths of agricultural policy instruments; - explain the quantitative techniques that were covered for estimating causal impact; - distinguish between different concepts of causality when evaluating agricultural policy; - structure and organize large data sets to perform an analysis of causal effects with different methods for causal inference using the software programming knowledge learned; - derive research questions based on the current literature in this area and develop procedures and research designs to test these hypotheses.	Assignments	Written examination	6
APO-230	Advanced Applied Econometrics	L, E	Written examination must be passed for module BAS-110	D: 1 PRS: 2 nd	After completing the module, students will be able to - correctly interpret excerpts from econometric textbooks and articles; - apply matrix algebra in the context of statistics; - apply econometric methods to estimate quantitative economic models derived from economic theory; - select appropriate econometric methods based on an analysis of the data situation and research question; - correctly use and interpret the output from econometric software packages.	None	Assignment	6

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
ABS-210	Agricultural Production Economics	L, E	None	D: 1 PRS: 1 st	After completing the module, students will be able to - recall relevant theories and methods of production; - identify core farm management tasks and production-related problems in agricultural production; - apply relevant theories and associated farm management and planning tools; - apply various methods for productivity analysis and farm optimization; - use appropriate management tools to develop optimal solutions for typical farm management tasks; - discuss the solutions provided by the tools.	None	Written examination	6
MAC-230	Ethics in Food Consumption and Production	L, E, PS	None	D: 1 PRS: 1 st	After completing the module, students will be able to - describe ethical theories and theories and concepts related to responsible business conduct; - explain ethical arguments and different views on the role of businesses in society; - summarize relevant empirical studies of responsible/ethical conduct; - apply relevant theories and concepts to ethical issues in the food sector; - critically assess ethical cases with relevance to the food sector; - perform their own assessment of a specific case linked to the food sector; - discuss and reflect on their own findings and research performed by others; - prepare a scientific presentation.	None	Project report [60%] Assignment [40%]	6

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
APO-250	Partial and General Equilibrium Modeling	L	None	D: 1 PRS: 2 nd	After completing the module, students will be able to - outline the building blocks of partial and general equilibrium models and describe the interactions within and between these building blocks as expressed in their equations; - change equilibrium models in the software package GAMS and perform counterfactual analyses; - use microeconomic theory, their knowledge of agricultural and food markets and, more generally, their knowledge of the economic system to analyze the results of such models; - assess the impact of policy changes on quantities, prices and welfare based on their use in equilibrium models; - provide a short report summarizing these impacts in the term paper.	None	Term paper	6
ENV-330	Research Seminar in Resource and Environmental Economics	S*	48 ECTS CP	D: 1 PRS: 3 rd	After completing the module, students will be able to - summarize the scientific state of the art in a self-selected field of research; - build a conceptual framework for the social sciences/environmental economics; - prepare and present a research proposal; - participate in scientific debates.	None	Term paper [60%] Presentation [40%]	6

Major or minor in Market and Consumer Research (MAC)

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
MAC-130	Global Agricultural and Food Markets	L, S, E	None	D: 1 PRS: 1 st	<p>After completing the module, students will be able to</p> <ul style="list-style-type: none"> - describe key European and global agricultural and food markets; - explain the impact of interdependencies between agricultural and food markets; - use economic theories to analyze developments in agricultural and food markets; - describe the basic framework for international trade provided by the WTO; - explain the relevance and international framework of non-tariff trade barriers (NTB) in agricultural and food markets; - evaluate the welfare effects of NTB under various assumptions; - understand the difference between private and public standards in world agricultural and food markets; - explain and structure relevant actors in international agricultural and food markets; - explain the need for coordination within food value chains depending on product and value chain characteristics; - evaluate the results of agricultural models; - combine insights gained in class with a specific case and present and discuss in class. 	None	<p>Written examination [60%]</p> <p>Presentation [40%]</p>	6

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
MAC-100	Food Marketing	L, E	None	D: 1 PRS: 3 rd	<p>After completing the module, students will be able to</p> <ul style="list-style-type: none"> - describe relevant psychological and sociological constructs to understand the impact of marketing; - survey the competitive conditions in food markets with a focus on German food markets; - name the marketing fields of action and opportunities for applying instruments in the competitive environment of food markets; - explain the differences in the impact of marketing strategies depending on the market environment (e.g. market structure); - analyze consumer reactions based on psychological and sociological constructs; - analyze developments in food value chains; - develop and implement marketing strategies at the company level in a highly competitive environment; - analyze and interpret market information based on research studies; - present, discuss and defend implemented marketing strategies. 	None	<p>Written examination [60%]</p> <p>Presentation [40%]</p>	6

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
MAC-110	Food Industrial Economics	L, E, PS	None	D: 1 PRS: 2 nd	<p>After completing the module, students will be able to</p> <ul style="list-style-type: none"> - describe the main characteristics of the European food sector; - explain the interactions between market structure, conduct and performance; - apply concepts used in industrial economics; - use game theory to analyze interactions between companies; - analyze the impact of different market structures and company strategies; - critically evaluate the effects of business strategies on company performance and consumer and social welfare; - explain and give examples of the role of economic policy in imperfect competitive markets; - relate theories that were introduced to real world cases relevant to the food sector, analyze and evaluate those cases and discuss policy implications. 	None	<p>Written examination [70%]</p> <p>Project report [30%]</p>	6

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
MAC-120	Behavioral Economics in Agri-Food markets	L, S	None	D: 1 PRS: 2 nd	After completing the module, students will be able to - outline the concept of rational choice in neoclassical economics and its shortcomings in explaining human behavior in the real world; - explain key concepts in behavioral economics, such as bounded rationality, framing, anchoring and endowment effects, status quo bias, heuristics and cognitive errors, nudging, altruism, fairness and reciprocity; - describe how experiments are conducted in behavioral economics and prepare an experimental setup for a given research question; - discuss ethics in behavioral economics, focusing in particular on nudging and libertarian paternalism; - understand, present and discuss experimental scientific papers; - explain different methods of cognitive neuroscience.	None	Written examination [70%] Presentation [30%]	6
MAC-210	Advanced Methods of Market and Consumer Research	L, E	None	D: 1 PRS: 2 nd	After completing the module, students will be able to - prepare data for subsequent statistical analysis; - perform hypothesis testing using parametric and non-parametric tests; - perform empirical research applying the method(s) taught in class; - evaluate the analytic results obtained from statistical software; - identify appropriate research methods for a research problem; - understand methods from a theoretical point of view; - present and reflect on results obtained from empirical analysis.	None	Written examination [60%] Project report [40%]	6

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
MAC-220	Communication in the Food Sector	L, S	None	D: 1 PRS: 2 nd	After completing the module, students will be able to - define and describe important conceptualizations of communication research; - identify and distinguish different models of communication and give examples; - explain different approaches and theories related to (mass) media research; - identify different marketing and advertising strategies in the food sector and give examples; - apply conceptual knowledge of communication and perception theories and relate them to marketing issues in the agricultural and food sector and nutrition education policies; - plan, organize and present their results.	None	Written examination [70%] Presentation [30%]	6
MAC-230	Ethics in Food Consumption and Production	L, E, PS	None	D: 1 PRS: 1 st	After completing the module, students will be able to - describe ethical theories and theories and concepts related to responsible business conduct; - explain ethical arguments and different views on the role of businesses in society; - summarize relevant empirical studies of responsible/ethical conduct; - apply relevant theories and concepts to ethical issues in the food sector; - critically assess ethical cases with relevance to the food sector; - perform their own assessment of a specific case linked to the food sector; - discuss and reflect on their own findings and research performed by others; - prepare a scientific presentation.	None	Project report [60%] Assignment [40%]	6

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
MAC-300	Seminar Markets and Consumers	S*	None	D: 1 PRS: 3 rd	After completing the module, students will be able to - recall relevant results from current research on a selected topic; - identify and explain theories and methods from the fields of microeconomics, industrial economics marketing and/or behavioral economics relevant to a selected topic; - autonomously apply theories and methods from the fields of microeconomics, industrial economics marketing and/or behavioral economics relevant to a selected topic; - derive testable hypotheses or research questions from relevant theoretical models and from a review of the relevant literature; - acquire expertise in the collection of primary data, identification of appropriate secondary data and analysis of the data; - discuss and reflect on their own findings and research performed by others; - write a scientific paper; - prepare a scientific presentation; - moderate a session.	None	Term paper [70%] Presentation [30%]	6
MAC-310	Special Project in Market and Consumer Research	PS	Two MAC modules with an average grade of 1.3 or better	D: 1 PRS: 2 nd /3 rd	After completing the module, students will be able to - research a topic in the field of market and consumer research; - identify and explain theories and methods relevant to their research project; - apply appropriate theories and methods for their research project; - identify and select appropriate methods for data analysis; - select appropriate theories and methods for their research project and evaluate their research results; - reflect on their own research results in relation to the current state of research.	None	Project report	6

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
APO-230	Advanced Applied Econometrics	L, E	Written examination must be passed for module BAS-110	D: 1 PRS: 2 nd	After completing the module, students will be able to - correctly interpret excerpts from econometric textbooks and articles; - apply matrix algebra in the context of statistics; - apply econometric methods to estimate quantitative economic models derived from economic theory; - select appropriate econometric methods based on an analysis of the data situation and research question; - correctly use and interpret the output from econometric software packages.	None	Assignment	6
MAC-330	Research Seminar in Market and Consumer Research	S*	48 ECTS CP	D: 1 PRS: 3 rd	After completing the module, students will be able to - prepare a synthesis of the current state of research in the field of their research project; - select and understand appropriate theories for their research project; - know how to derive testable hypotheses or research questions from relevant theoretical models and a review of the relevant literature; - use an appropriate methodology for their research project; - plan a research project; - lead and moderate a scientific discussion; - provide examples for a number of research topics in the field and explain the results.	None	Term paper [67%] Presentation [33%]	6

Minor in Development Economics (DEV)

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
APO-240	Development Economics	L, E	None	D: 1 PRS: 2 nd	After completing the module, students will be able to - describe key concepts and the structure of economic growth models and drivers of socio-economic development; - explain the role of institutions, labor markets, migration and sustainable natural resource management for economic development; - apply the concepts that have been learned to the analysis of development policies; - compare methods for researching sustainable natural resource management topics; - evaluate empirical examples using case studies; - generalize lessons learned from case studies to broader development issues.	None	Written examination	6
APO-260	Food Security and Sustainable Food Systems	L	None	D: 1 PRS: 3 rd	After completing the module, students will be able to - define key terms related to food security and sustainable diets; - explain how food systems relate to the different Sustainable Development Goals (SDGs); - identify policy needs and analyze the sustainability implications of specific interventions; - evaluate the arguments in the public debate concerning sustainable agriculture and nutrition; - prepare and use dietary surveys and nutrition assessment tools.	None	Written examination	6

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
ENV-130	Impact Evaluation of Conservation & Development Projects and Environmental Policies	L, E	None	D: 1 PRS: 2 nd	After completing the module, students will - know alternative quantitative evaluation methods and their underlying assumptions; - understand how different types of selection effects impact development and conservation initiatives; - be able to apply selected evaluation methods to real world problems; - be able to critically interpret the findings from evaluation studies.	None	Assignment	6

Minor in Agroeconomic Modeling (MOD)

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
APO-220	Applied Modeling of Agricultural Systems	Proj	None	D: 1 PRS: 3 rd	After completing the module, students will be able to - apply a policy-related equilibrium model; - analyze a real policy question using quantitative tools; - assess the impact of policy changes on quantities, prices and welfare based on their use in the chosen and expanded equilibrium model; - summarize these impacts in a presentation for the client and jointly document and comment on them in a larger report.	None	Seminar talk [50%] Report [50%]	6
APO-230	Advanced Applied Econometrics	L, E	Written examination must be passed for module BAS-110	D: 1 PRS: 2 nd	After completing the module, students will be able to - correctly interpret excerpts from econometric textbooks and articles; - apply matrix algebra in the context of statistics; - apply econometric methods to estimate quantitative economic models derived from economic theory; - select appropriate econometric methods based on an analysis of the data situation and research question; - correctly use and interpret the output from econometric software packages.	None	Assignment	6

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
APO-250	Partial and General Equilibrium Modeling	L	None	D: 1 PRS: 2 nd	After completing the module, students will be able to - outline the building blocks of partial and general equilibrium models and describe the interactions within and between these building blocks as expressed in their equations; - change equilibrium models in the software package GAMS and perform counterfactual analyses; - use microeconomic theory, their knowledge of agricultural and food markets and, more generally, their knowledge of the economic system to analyze the results of such models; - assess the impact of policy changes on quantities, prices and welfare based on their use in equilibrium models; - provide a short report summarizing these impacts in the term paper.	None	Term paper	6
ENV-240	Bio-Economic Modeling at Farm Scale	L	None	D: 1 PRS: 3 rd	After completing the module, students will be able to - outline the building blocks of farm-scale bioeconomic models and describe the interactions within and between various sub-systems in a farm as expressed in a formal optimization model; - write simple or more complex farm-scale bioeconomic models in the software package GAMS; - use microeconomic theory to analyze the results of such a model; - evaluate the impact of drivers of farm management decisions, such as changes in input/output prices or farm-scale policies on economic and environmental indicators based on the application of a bioeconomic model; - provide a short report summarizing these impacts in the term paper.	None	Term paper	6

Free elective modules (Modules worth 0 to 12 ECTS CP can be chosen; modules that have already been completed in another elective area cannot be chosen.)

Up to 12 ECTS CP can be earned for free electives. Modules that can be chosen in this area are shown in the module guide. Modules from other degree programs at the University of Bonn that have been approved by the examination board can also be chosen in this area (import modules). The examination board shall announce the approved elective modules before the beginning of the semester. The examination board can approve other elective modules upon request by individual students. The import modules are governed by the provisions of the examination regulations for the degree programs in which the modules are originally based.

Module Number	Module Name	Course Type	Admission Requirements	Duration/ Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
fWP4	Free Elective Module(s)	According to the modules selected	According to the modules selected	According to the modules selected	Acquire interdisciplinary academic competences according to the modules selected	According to the modules selected	According to the modules selected	Up to 12
ILR-01	Internship in Agricultural and Food Economics	I	None	D: 1 PRS: 1 st –3 rd	Students learn to transfer and apply theoretical knowledge in a typical professional work environment for MSc students and gain professional qualifications in the form of practical experience.	Internship report, presentation	None	6

Master's thesis (30 ECTS CP; in accordance with § 4, para. 2, sentence 1 Option a.)

Module Number/Abbreviation	Module Name	Course Type	Admission Requirements	Duration/Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
M-401	Master's Thesis		Students must be registered in one of the following modules depending on the research group of the supervisor: ABS-330, ENV-330, MAC-330 or APO-330 and must have completed at least 60 ECTS CP.	D: 1 PRS: 4 th	After completing the module, students will be able to - work independently and efficiently; - handle feedback from supervisors; - define a research question; - build a sound theoretical and methodological framework; - collect data systematically and verifiably; - analyze data critically and correctly; - formulate sound conclusions based on a comprehensive discussion of the results; - write a comprehensive, consistent and concise thesis. Candidates shall have a minimum of two and a maximum of six months for completion.	None	Master's thesis	30

Annex 2: Procedure in accordance with § 3, para. 4 of these Examination Regulations for the aptitude test for foreign applicants to the consecutive master's degree program Agricultural and Food Economics (AFECO) who are not given equivalent status to Germans by or based on international treaties

I. General principles

- (1) The admission requirements in § 3 of the Examination Regulations must be satisfied for admission to the consecutive master's degree program Agricultural and Food Economics (AFECO). Under § 3, para. 4 of the Examination Regulations, foreign applicants who are not given equivalent status to Germans by or based on international treaties must pass a special aptitude test for university studies.
- (2) This annex sets down the provisions governing the aptitude test for university studies specified in para. 1.
- (3) The objective of the procedure is to determine whether applicants have the aptitude necessary to be expected to successfully graduate from the degree program.
- (4) §§ 6 (Recognition of and granting credit for academic achievements), 8 (Examination board and exam office), 9 (Examiners and assistant examiners), 31 (Access to examination records) and 32 (Invalidity of the bachelor's or master's examination and revocation of the bachelor's or master's degree) of these Examination Regulations shall apply accordingly.

II. Eligibility and application procedure/admission to the examination procedure

- (1) Foreign applicants who satisfy the other admission requirements in § 3 of the Examination Regulations or are expected to satisfy them in accordance with para. 5, sentence 2, can participate in the examination procedure for the aptitude test for university studies specified in Part I, para. 3.
- (2) Applications for admission to the examination procedure must be submitted electronically or in writing in German or English using the application forms provided by the examination board. Admission takes place each summer and winter semester. The application deadlines are January 15 and April 30, respectively. The time of receipt of the electronic or written application by the University of Bonn determines whether the application deadline has been met. The application deadline and issuing of the notices in Part VI shall be coordinated with the enrollment deadline.
- (3) The following documents shall be included in English in electronic or written form with the application:
 1. Proof of formal qualification in accordance with § 3, para. 1 and 2 of the Examination Regulations or a provisional certificate in accordance with para. 5, sentence 2
 2. A completed admission application form
 3. A curriculum vitae with a detailed description of prior education
 4. Proof of English language proficiency in accordance with § 3, para. 3 of the Examination Regulations
- (4) The chairperson of the examination board established in accordance with § 8 of the POO-LWF shall make the decision on the application for admission to the examination procedure.
- (5) Admission shall be rejected if the application is incomplete. If the documents specified in para. 3 are not yet available at the time the application is submitted, a corresponding certificate from the university concerned and list of the modules completed and their grades shall be sufficient for the application. The applicant must submit formal proof immediately upon receipt.

III. Performing the examination procedure

- (1) The examination board formed in accordance with § 8 of the POO-LWF is responsible for organizing and carrying out the examination procedure. The examination board shall hold discussions and make decisions in closed meetings. It shall appoint a committee consisting of a chairperson and at least two other members of the group of professors in the Institute for Food and Resource Economics to carry out the procedure. Decisions shall be made by simple majority. In the event of a tie vote, the chairperson's vote shall be the deciding vote.
- (2) The examination board appoints the examiners for the examination procedure. § 9 of the POO-LWF applies accordingly.

IV. Examination procedure

- (1) The application documents will be checked to determine the level of education achieved in the fields of agribusiness management, agricultural economics, food and household economics, economics and business administration in the first degree. Particular attention will be given to whether the applicant has the knowledge in the following areas that is required for successfully completing the consecutive master's degree program Agricultural and Food Economics (AFECO):

- Microeconomics
- Statistics
- Economics

The standard used shall be the level of knowledge reached in the Agricultural Sciences bachelor's degree program specializing in the Economics of the Agricultural and Food Sector or Agricultural Economics at the University of Bonn at the end of the 5th program-related semester. The committee appointed by the examination board decides whether the aptitude test for university studies must be taken in order to assess the qualifications of the applicant based on the criteria above.

- (2) Applicants who completed their bachelor's studies in the Agricultural Sciences degree program specializing in the Economics of the Agricultural and Food Sector or Agricultural Economics or in a related or comparable degree program at another institution of higher education within the scope of the German Basic Law or at an institution of higher education in a member state of the European Union or a state that has ratified the Convention on the Recognition of Qualifications concerning Higher Education in the European Region (Lisbon Recognition Convention) have already proven their aptitude for university studies and are exempt from the test.
- (3) Written examinations shall be a maximum of three hours in length. Oral examinations shall be a maximum of one hour in length. Applicants who satisfy the admission requirements for the aptitude test for university studies in Part II shall be notified in writing of the type of examination and examination date. Examinations shall take place in English.
- (4) § 13, para. 7 of the POO-LWF applies accordingly.

V. Grading of examinations

- (1) A point score is assigned for the written or oral examination. The highest possible score is 100 points. The assessment is considered passed if a score of at least 50 points is achieved.
- (2) Applicants who try to influence the outcome of a written examination through deception or the use of inadmissible auxiliary means shall receive an overall score of "0" (zero) points on the written examination. If a proctor determines that such deception has taken place, the applicant can request that the examination board review the decision.
- (3) Written examinations shall be graded by two examiners. The two examiners assign separate point scores for the examination. The overall score for the paper is calculated as the arithmetic average of the individual scores assigned by the two examiners.
- (4) The oral examination shall be conducted by several examiners or a single examiner as an individual or group interview in the presence of a competent assistant examiner (§ 9, para. 1 of the POO-LWF). If the examination is only conducted by a single examiner, the examiner shall hear the assistant examiner in private prior to setting a grade.
- (5) Otherwise, § 13, para. 7 of the POO-LWF shall apply accordingly.

VI. Notification of the results and repetition of the examination procedure

- (1) Candidates shall be informed of their results on the oral examination immediately following the examination. The examination board shall also notify the applicant in writing of the results of the examination. If the notice indicates a negative decision, it must include information on legal remedies. The reasons for the negative decision must be included.
- (2) Applicants who do not pass the examination procedure may repeat the examination on the date in the following semester at the earliest; a new application is required. A second repetition is not possible.

VII. Students who change the location of their studies

For students who change the location of their studies and were previously enrolled in a master's degree program in the field of agricultural economics or a comparable degree program at another institution of higher education, the examination board shall assess their individual qualifications, including an examination procedure if one was performed. If the examination board decides that the degree program and examination procedure are equivalent, the applicant will be exempt from participating in the examination procedure at the University of Bonn.