Module Name	Module Code
Ecosystem Services in Agroecosystems	AEF-agr852
Module Coordinator	
Prof. Dr. Tim Diekötter	
Organizer	
Institute for Natural Resource Conservation - Ecosystem Management	
Faculty	
Faculty of Agricultural and Nutritional Sciences	
Examination Office	
Faculty of Agricultural and Nutritional Sciences - Examination Office	

ECTS Credits	6
Evaluation	Graded
Duration	one semester
Frequency	Only takes place during summer semesters
Workload per ECTS Credit	30 hours
Total Workload	180 hours
Contact Time	60 hours
Independent Study	120 hours
Teaching Language	English

Module Courses			
Course Type	**Course Name**	**Compul-sory/Optional**	**SWS**
Practical exercise	Ecosystem Services in Agroecosystems	Compulsory	3
Lecture	Ecosystem Services in Agroecosystems	Compulsory	1

Examination(s)				
Examination Name	**Type of Examination**	**Evaluation**	**Compulsory / Optional**	**Weighting**
Assignment: Ecosystem Services in Agroe-cosystems	Assignment	Graded	Compulsory	100
Further Information on the Examination(s)				
1.+2. period in summersemester 1. period in wintersemester examiner: Prof. Dr. Diekötter From SS 2017: Assignment 100% (consisting of : 1. practical determination of selected Arthropods 2. pre-paration of a homework) QIS 67401 with number of Examination 67420				

Course Content

Lecture: The lecture addresses the ecological and economical value of ecosystem services in agroecosystems. Further, the lecture provides insight on how local and landscape scale factors (e.g., management intensity, landscape configuration) interact with ecosystem services and how agroecosystems can be managed to maximize services. Life cycles and feeding biology of the most important ecosystem service providers will be discussed.
Different methodologies will be introduced on how to monitor these providers and on how to assess their contributions.
Exercise:
literature search via ISI Web of Science,
framing and testing hypotheses,
experimental design,
data analysis in R,
conducting a BEF-research
scientific writing

Learning Outcome

Students of this module will be able to comprehend and critically reflect the value of ecosystem services in agroecosystems. They will also learn how to search and critically review and discuss existing literature and based on this, formulate novel research hypotheses. Students will gain basic insights into how to design, plan and carry out biodiversity-ecosystem-functioning research. They will become acquainted with basic R functionality and statistical techniques. Students will learn how to write a scientific publication.

Reading List

Schulze E-D & Mooney HA (Eds.) (1994) Biodiversity and Ecosystem Function. Springer
Lovett GM et al. (Eds.) (2005) Ecosystem Function in Heterogeneous Landscapes. Springer
Loreau M et al. (Eds.) (2002) Biodiversity and Ecosystem Functioning. Synthesis and Perspectives. Oxford
Naeem S et al. (Eds.) (2009) Biodiversity, Ecosystem Functioning & Human Wellbeing. Oxford
Kareiva P et al. (Eds.) Natural Capital. Theory and Practice of Mapping Ecosystem Services. Oxford

Additional Information

Maximum number of participants: 16
Enrollment by OLAT within workdays Monday through Friday in the 1nd week of the 2. audit period of the preceding semester. Following information are necessary:
matriculation number
last name
first name
striven degree
study program
stu-Email

The allocation of the places takes place in the 2nd week of the 2. audit period of the preceding semester.
Acceptance of the place by students only through participation at the first day of the course.
Students without a place can get a place at the first day of the course by move-up procedure.

Use	Compulsory / Optional	Semester
Master, 1-Subject, Agricultural Sciences, Specialisation Agricultural Economics, (Version 2017)	Optional	2.
Master, 1-Subject, Agricultural Sciences, Specialisation Agricultural Economics, (Version 2013)	Optional	2.
Master, 1-Subject, Agricultural Sciences, Specialisation Agribusiness, (Version 2017)	Optional	2.
Master, 1-Subject, Agricultural Sciences, Specialisation Agribusiness, (Version 2013)	Optional	2.
Master, 1-Subject, Agricultural Sciences, Specialisation Crop Sciences, (Version 2017)	Optional	2.
Master, 1-Subject, Agricultural Sciences, Specialisation Crop Sciences, (Version 2013)	Optional	2.
Master, 1-Subject, Agricultural Sciences, Specialisation Animal Sciences, (Version 2017)	Optional	2.
Master, 1-Subject, Agricultural Sciences, Specialisation Animal Sciences, (Version 2013)	Optional	2.
Master, 1-Subject, Agricultural Sciences, Specialisation Environmental Sciences, (Version 2017)	Optional	2.
Master, 1-Subject, Agricultural Sciences, Specialisation Environmental Sciences, (Version 2013)	Optional	2.
Master, 1-Subject, Dairy Science, (Version 2017)	Optional	2.
Master, 1-Subject, Environmental Management, (Version 2017)	Optional	2.
Master, 1-Subject, Nutritional and Food Science, (Version 2013)	Optional	2.
Master, 1-Subject, Nutritional and Consumer Economics, (Version 2017)	Optional	2.
Master, 1-Subject, Nutritional and Consumer Economics, (Version 2013)	Optional	2.