

Module Name	Module Code
Ecology of Soils - Practical Exercises	AEF-EM016
Module Coordinator	
Dr. agr. Claus-Georg Schimming	
Organizer	
Institut für Natur- und Ressourcenschutz - Hydrologie und Wasserwirtschaft	
Faculty	
Faculty of Agricultural and Nutritional Sciences	
Examination Office	
Prüfungsamt Agrar- und Ernährungswissenschaftliche Fakultät	

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	Ecology of Soils	Compulsory	3,5
Field trip	Ecology of Soils	Compulsory	0,5
Prerequisites for Admission to the Examination(s)			
Regular visits of excursion is necessary.			

Examination(s)				
Examination Name	Type of Examination	Evaluation	Compulsory / Optional	Weighting
Oral Examination: Ecology of Soils - Practical Exercises	Oral Examination	Graded	Compulsory	100
Further Information on the Examination(s)				
1.+2. period in summersemester 1. period in wintersemester examiner: Dr. Schimming/N.N. QIS: 75500 with number of Examination 75510				

Course Content
<p>The students have experienced lab and field methods as well as using respective data for the assessment of ecological soil properties, the ability for of classifying values by valuation scales and soil-quality standards, awareness of limited data quality with respect of sampling and representativeness and mapping. Moreover the students will be able to identify the relationship between vegetation and the availability of water and nutrients</p>
Learning Outcome
<p>Methods for characterizing of ecological relevant physic-chemical properties of soil, exercising lab. and field methods for Cation-exchange (CEC, available nutrients) and soil water retention (available water capacity), evaluation schemes and assessment of soil potentials, potentials and limitations of mapping, Soil vegetation relationships in the soil-landscape context</p>
Reading List
<p>Brucker G., Kalusche:D. (1990): Bode und Umwelt, Quelle & Meyer, Heidelberg Coleman, D.C., Crossley, D.A. Hendrix D.A. (2004): Fundamentals of Soil Ecology, Elsevier, Burlington Ellenberg H., Weber D.A. Düll R., Wirth V., Werner, W., Paulißen D. (1992): Zeigerwerte von Pflanzen in Mitteleuropa. Scripta Geobotanica 18, 2. Auflage Gisi U., Schenker, R., Schulin, R., Stadelmann, F.X , Sticher H. (1997): Bodenökologie (Thieme Verlag) Hillel D: (2007); Soil in the Environment. Elsevier Ammsterdam Miller, WR., Gardiner D.T. (2007): Soils in Our Environment. Prentive Hill, Eaglewo Cliffs,N.J.</p>
Additional Information
<p>Institute for Natural Resource Conservation Department of Hydrology and Water Management Olshausenstr. 75 24118 Kiel Room:113 Phone: +49 431 880-4034 Fax: +49 431 880-4038</p>

Use	Compulsory / Optional	Semester
Master, 1-subject, Agricultural Sciences, Agricultural Economics, (Version 2013)	Optional	-
Master, 1-subject, Agricultural Sciences, Agribusiness, (Version 2013)	Optional	-
Master, 1-subject, Agricultural Sciences, Crop Sciences, (Version 2013)	Optional	-
Master, 1-subject, Agricultural Sciences, Animal Sciences, (Version 2013)	Optional	-
Master, 1-subject, Agricultural Sciences, Environmental Sciences, (Version 2013)	Optional	-
Master, 1-subject, Applied Ecology, (Version 2016)	Optional	-
Master, 1-subject, Applied Ecology, (Version 2015)	Optional	-
Master, 1-subject, Applied Ecology, (Version 2010)	Optional	-
Master, 1-subject, Environmental Management, (Version 2013)	Optional	-
Master, 1-subject, Environmental Management - Management of Natural Resources, (Version 2010)	Optional	-
Master, 1-subject, Nutritional and Food Science, (Version 2013)	Optional	-
Master, 1-subject, Nutritional and Consumer Economics, (Version 2013)	Optional	-
Master, 1-subject, Sustainability, Society and the Environment, (Version 2013)	Optional	-