

Module Name	Module Code
Processes in Soil	EMAEF075-01a
Module Coordinator	
Prof. Dr. Sandra Spielvogel	
Organizer	
Institute of Plant Nutrition and Soil Science - Soil Science	
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 winter semesters
Workload per ECTS Credit	30 hours
Total Workload	180 hours
Contact Time	60 hours
Independent Study	180 hours
Teaching Language	German

Recommended Requirements			
Introduction into soil science (basic knowledge)			
Module Courses			
Course Type	Course Name	Compulsory/Optional	SWS
Lecture	Biogeochemistry of Agricultural Soils	Compulsory	2
Seminar	Laboratory analyses and modeling of biogeochemical soil processes	Compulsory	1
Practical exercise	Laboratory analyses and modeling of biogeochemical soil processes	Compulsory	1

Examination(s)				
Examination Name	Type of Examination	Evaluation	Compulsory / Optional	Weighting
Oral Examination: Processes in Soil	Oral Examination	Graded	Compulsory	100
Further Information on the Examination(s)				
1.+2. period in winter semester 1. period in summer semester examiner: Prof. Dr. Sandra Spielvogel/Dr. Dippold QIS: 72700 with number of Examination 72710				

Course Content
Profound knowledge about biogeochemical processes in soil and their changes under different management practices and climate change with time and space. Basic knowledge about the management of biogeochemical soil properties and processes. Management of biogeochemical properties with respect to soil protection. Analysis of biogeochemical soil properties and evaluation of biogeochemical analysis results.
Learning Outcome
Students have a profound knowledge about biogeochemical soil processes and their management with respect to soil protection and sustainability of soil fertility
Reading List
Lecture slides; scientific publications (provided during the course)

Use	Compulsory / Optional	Semester
Master, 1-Subject, Agricultural Sciences, Specialisation Agricultural Economics, (Version 2017)	Optional	-
Master, 1-Subject, Agricultural Sciences, Specialisation Agribusiness, (Version 2017)	Optional	-
Master, 1-Subject, Agricultural Sciences, Specialisation Animal Sciences, (Version 2017)	Optional	-
Master, 1-Subject, Agricultural Sciences, Specialisation Environmental Sciences, (Version 2017)	Optional	-
Master, 1-Subject, Environmental Management, Double-Degree-Agreement with Adam-Mickiewicz-University, Polen (UAM), (Version 2020)	Optional	-
Master, 1-Subject, Environmental Management, Double-Degree-Agreement with Irkutsk State University, Russland (ISU), (Version 2020)	Optional	-
Master, 1-Subject, Environmental Management, (Version 2020)	Optional	-
Master, 1-Subject, Nutritional and Food Science, (Version 2013)	Optional	-
Master, 1-Subject, Nutritional and Consumer Economics, (Version 2017)	Optional	-