

Module Name	Module Code
Hydrology and Climatology	AEF-EM002-01a
Module Coordinator	
Prof. Dr. Nicola Fohrer	
Organizer	
Institute for Natural Resource Conservation - Hydrology and Water Resources Management	
Faculty	
Faculty of Agricultural and Nutritional Sciences	
Examination Office	
Faculty of Agricultural and Nutritional Sciences - Examination Office	

ECTS Credits	6
Evaluation	Graded
Duration	ein Semester
Frequency	Only takes place during winter semesters
Workload per ECTS Credit	30 hours
Total Workload	180 hours
Contact Time	52,5 hours
Independent Study	127,5 hours
Teaching Language	English

Entry Requirements as Stated in the Examination Regulations			
Excluded from participation: Students Bachelor of Science Agricultural Sciences - University Kiel Students Master of Science Geography - University Kiel			
Module Courses			
Course Type	Course Name	Compul- sory/Optional	SWS
Lecture	Hydrology	Compulsory	2
Lecture	Climatology	Compulsory	2
Prerequisites for Admission to the Examination(s)			

Examination(s)				
Examination Name	Type of Examination	Evaluation	Compulsory / Optional	Weighting
Oral Examination: Hydrology and Climatology	Oral Examination	Graded	Compulsory	100
Further Information on the Examination(s)				
1.+2. period in wintersemester 1. period in summersemester Excluded from participation: Students Bachelor of Science Agricultural Sciences - University Kiel Students Master of Science Geography - University Kiel examiner: Prof. Dr. Fohrer/Dr. Wagner QIS: 71200 with number of Examination 71210				

Course Content
Principles of Hydrology: History of hydrology, water as a substance, water cycle, water balance equation, climatic input parameters, energy budget, evapotranspiration, soil water budget, rivers, groundwater, examples, calculations to quantify water budget, water quality, drinking water, waste water, treatment, irrigation Principles of Climatology: heat balance, radiation balance, evaporation, transpiration, formation of local and regional microclimate.
Learning Outcome
Hydrology: Students understand the basics of the hydrologic cycle and are able to interpret the effectivity of different measures and processes as well as the impact of anthropogenic interferences. Climatology: Students understand the basics of climatologic processes and their influence on the local microclimate. Students are able to calculate radiation – and thermal balances for different locations The practical part of this module teaches students to use publicly available data sources.
Reading List
Online lecture notes: OLAT RC Ward & M. Robinson, 2000: Principles of hydrology. Mc Graw Hill, 4th edition.450p. T. Davie, 2002: Fundamentals of hydrology. Routledge Fundamentals of physical geography.169p.
Additional Information
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Use	Compulsory / Optional	Semester
Bachelor, 1-Subject, Geography, (Version 2013)	Optional	-
Bachelor, 1-Subject, Geography, (Version 2007)	Optional	-
Master, 1-Subject, Agricultural Sciences, Specialisation Agricultural Economics, (Version 2017)	Optional	-
Master, 1-Subject, Agricultural Sciences, Specialisation Agricultural Economics, (Version 2013)	Optional	-
Master, 1-Subject, Agricultural Sciences, Specialisation Agribusiness, (Version 2017)	Optional	-
Master, 1-Subject, Agricultural Sciences, Specialisation Agribusiness, (Version 2013)	Optional	-
Master, 1-Subject, Agricultural Sciences, Specialisation Crop Sciences, (Version 2017)	Optional	-
Master, 1-Subject, Agricultural Sciences, Specialisation Crop Sciences, (Version 2013)	Optional	-
Master, 1-Subject, Agricultural Sciences, Specialisation Animal Sciences, (Version 2017)	Optional	-
Master, 1-Subject, Agricultural Sciences, Specialisation Animal Sciences, (Version 2013)	Optional	-
Master, 1-Subject, Agricultural Sciences, Specialisation Environmental Sciences, (Version 2017)	Optional	-
Master, 1-Subject, Agricultural Sciences, Specialisation Environmental Sciences, (Version 2013)	Optional	-
Master, 1-Subject, Dairy Science, (Version 2017)	Optional	-
Master, 1-Subject, Ecohydrology, (Version 2011)	Optional	-
Master, 1-Subject, Environmental and Resource Economics, (Version 2014)	Optional	-
Master, 1-Subject, Environmental Management, (Version 2017)	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 2017)	Optional	-
Master, 1-Subject, Nutritional and Consumer Economics, (Version 2013)	Optional	-
Master, 1-Subject, Urban and Regional Development, (Version 2013)	Optional	-
Master, 1-Subject, Sustainability, Society and the Environment, (Version 2013)	Optional	-
Master, 1-Subject, Environmental Geography and Management, (Version 2015)	Optional	-
Master, 1-Subject, Environmental Geography and Management, (Version 2013)	Optional	-

