

Module title	Geographic Information Systems in Water Management I – RWTH Aachen			
Identifier	3011786			
Duration (Semester)	one semester			
Cycle (Semester)	summer semester			
Valid from	summer semester 2021			
Valid until	-			
Module level	Master			
Content	Basics of GIS systems (map projections, ArcCatalog, layout etc.); geoprocessing; coordinate systems; tables and geometry; raster data; spatial data analysis; specialist tasks, which are acquired with GIS; flow paths calculation and catchment area determination			
Learning Objectives/ Learning Outcomes	Students should learn how specific water management tasks with the tools of geographic information systems as well as database systems are analysed, edited and solved; The theoretical basis will be put on the methodology and coupling of specific water management issue with the implementation possibilities of GIS system and relational databases; At the end of the module, students should be independently able to analyse and solve specific water management tasks with the help of geographic information systems and relational database systems and the acquired expert knowledge can be transferred to alien tasks; The acquired knowledge is under constant review as a part of self-assessment. Goal of the tutorial: Repetition and consolidation of the learned content as well as supervised working on homework and exercises.			
(Study-Specific) Prerequisites	None			
References	see Moodle			
Language	English			
Examination Terms	Graded written Exam. Prerequisite for participation in the written exam: compulsory attendance at the seminar.			
Miscellaneous				
Module coordinator	Universitätsprofessor Dr.-Ing. Heribert Nacken			
ETCS credits	5			
Contact time (WSH)	2			
Examination duration (min)	-			
Total hours (h)	120			
Contact hours (h)	30			
Self-study hours (h)	90			
Exam node (Kennung)				
Title	ECTS Credits	Contact time (WSH)	Recommended Semester (Study start winter)	Recommended Semester (Study start summer)

Seminar Geographic Information Systems in Water Management I (301178602)	0	2	2nd semester	no semester recommended
Written exam (or oral exam) Geographic Information Systems in Water Management I (301178601)	5	0	2nd semester	no semester recommended
Offer node				
Title	ECTS Credits	Contact time (WSH)	Recommended Semester (Study start winter)	Recommended Semester (Study start summer)
Optional Tutorial Geographic Information Systems in Water Management I	-	0	2nd semester	no semester recommended