

Module Name	3.1.3 Integrated Management of River Basins
Identification code	AEF300, EM3.1.3, EH-CAU402 (QIS-registration for examination) 77200
Subtitle	
Courses embedded	
Term	Winter
Coordinator	Prof. Dr. N. Fohrer
Teachers	Prof. Dr. N. Fohrer Dipl.-Ing. C. Hugenschmidt
Tuition language	English
Programme involvement	Elective MSc Environmental Management Compulsory MSc Ecohydrology
Teaching form, contact time per week	Lecture Integrated Management of River Basins (30h/90h) Excursion Integrated Management of River Basins, (15h/45h) Seminar Integrated Management of River Basins, (15h/45h)
Workload overall	180h
Contact time	60h
ECTS credit points	6
Preconditions prescribed	
Prerequisites recommended	
Learning outcomes	Students learn basics of river basin monitoring strategies and the application of hydrologic modelling. They are able to assess water and matter fluxes in catchments and compare the impact of management options. They can evaluate the reliability of scenario runs.
Content	EU Water Framework Directive, data bases of river basin modelling, analysis of runoff components, application of hydrological models, water and matter balances on catchment scale, model calibration and validation, error and uncertainty estimation, sensitivity analysis, evaluation of water quality, analysis of pollutant transports and relevant entry pathways, development of management alternatives to reduce pollutant loads.
Assessment	Presentation 100%
Teaching media	
References	Online lecture notes: OLAT Ward, A.D., & Trimble, S.W: 2004: Environmental Hydrology. Lewis Publishers
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