

Modulnummer	436 (für die Anmeldung in QIS 64900)
Modulname - deutsch	Prinzipien der Hydraulik von Flüssen und Seen
Modulname - englisch	Principles of hydraulics of rivers and lakes
Studiengang und -abschnitt	MSc Agricultural Sciences, MSc Environmental Management, MSc Eco-hydrology, MSc Applied Ecology
Häufigkeit des Angebots	yearly in WS
Modulverantwortlicher	Prof. Dr. N. Fohrer
Studienberatung zum Modul	Prof. Dr. N. Fohrer, Dr. H. Messal
Lehrveranstaltungen und Dozenten	Lecture: Hydraulic Processes in Rivers and Lakes, Prof. Dr. N. Fohrer by Dr. H. Messal Practice: Hydraulic Modelling, Prof. Dr. N. Fohrer by Dr. H. Messal and Dr. B. Schmalz Excursion: Hydraulic Measurements, Prof. Dr. N. Fohrer by Dr. H. Messal and Dr. B. Schmalz
Vorkenntnisse	Basics of Hydrology, Basic Knowledge of Personal Computers
Sprache	English
Plätze	unlimited, Application up to 8 th October 2012 at Dr. H. Messal, hmessal@hydrology.uni-kiel.de
Lehrformen (Präsenzstunden/ Workload)	Lecture (45 h / 135 h), Practice (10 h / 30 h), Excursion (10 h / 15 h)
Ablauf	weekly in the lecture period
Art und Gewichtung der Prüfungsleistungen	Protocol: 100 % – Prof. Dr. N. Fohrer by Dr. H. Messal
European Credit Points des Moduls	6
Ziele des Moduls	The students apply hydraulic measurements in rivers and lakes. They are familiar with hydraulic methods and understand basic processes of river hydraulics and lakes. They can carry out hydraulic measurements and morphological mapping; They are able to apply basic hydraulic software and to interpret the results.
Inhalte des Moduls	Fundamentals of hydraulics and morphology, hydraulic phenomena of rivers and lakes, overview of mathematical descriptions of flow processes in rivers and lakes, lake retention, river and lake restoration measures, parameterization and application of a one-dimensional river model, water physics.
Vermittelte Kompetenzen	professional, learning, methodological and practical competence
Studienhilfsmittel	Online-documentation of the transparencies and slides of the lecture, http://www.hydrology.uni-kiel.de ; Houghtalen, R. J.; Hwang, N. H. C.; Akan, A. O.: „Fundamentals of Hydraulic Engineering Systems: International Version“;