

Analysis of environmental processes

Module Name	Analysis of environmental processes
Identification code	enrollment for exam about QIS: 74900
Subtitle	
Courses embedded	Field work (Exkursion): Regional environmental processes Exercise (Übung): Analysing and publishing environmental proxy data
Term	Summer
Coordinator	Prof. Dr. Ingmar Unkel
Teachers	Prof. Dr. Ingmar Unkel
Tuition language	English
Programme involvement	Elective M.Sc. Environmental Management Elective M.Sc. Applied Ecology
Teaching form, contact time per week class size	Field work (Exkursion): 1 SWS Exercise (Übung): 3 SWS
Workload overall	Field work (Exkursion): 15h/45h
Contact time	Exercise (Übung): 45h/135h
ECTS credit points	6
Preconditions prescribed	
Prerequisites recommended	
Learning outcomes	<p>The module focuses on sedimentary archives of environmental processes. Sample material which is described and taken by the students in the field is analyzed in the laboratory. The results of the field and laboratory analyses are assembled in a scientific text simulating a peer-reviewed scientific publication.</p> <p>This course fosters the ability of the students to analyze environmental data from the sedimentary record on their own. In the end they should present and discuss this data in a boarder scientific context going beyond a standard lab report. This should enable/prepare them to write scientific monographs (theses) or peer-reviewed journal articles.</p> <p>Key skills:</p> <ol style="list-style-type: none"> 1. Designing experiments/field work 2. Managing data 3. Publishing data (transforming data into graphs and texts)
Content	<ol style="list-style-type: none"> 1. Field course, taking sediment samples at selected locations in Schleswig-Holstein 2. Producing/describing/drawing sedimentary profiles 3. Laboratory analyses (e.g. grain size, LOI) 4. Setting up scientific articles 5. Article writing and data implementation 6. Reading and presenting respective reference literature
Assessment	Seminarbeitrag (SB) = Written contribution and oral presentation of the results
Teaching media	Field and laboratory equipment for sedimentary analyses Selected software tools (Inkscape, R, Citavi, Endnote, Mendeley) Powerpoint presentations
Literature/References:	Example: Journal of Environmental Management http://www.sciencedirect.com/science/journal/03014797 The course materials are made available through the e-learning platform OLAT
Contact	Prof. Dr. Ingmar Unkel Olshausenstraße 75 24118 Kiel phone: +49 431 880-5241 Fax: +49 431 880-4083 E-Mail: iunkel@ecology.uni-kiel.de