

GEW-MC01 Sedimentary Earth System Record		Number of credit points (LP): 6		
Module type (mandatory or elective module)	Elective module			
Contents and qualification objectives of the module	<p><b>Contents</b>  Students acquire in-depth knowledge of the methods used to study sedimentary sequences and to record sedimentary processes and their variations in the geologic past in response to changes in climate, sea level, paleoceanography, the biosphere, and tectonics.  By analyzing selected intervals in Earth history, this module examines the feedbacks between different components in the Earth system. The stratigraphic structuring of stratigraphic sequences and the creation of sedimentation models lead to a fundamental understanding of the Earth system and are furthermore of interest for the applied field (exploration, energy, final disposal). With exercises and a field trip, students acquire practical skills in applying the principles of basin analysis and the processes that control sedimentation history.</p> <p><b>Qualification goals</b>  Students</p> <ul style="list-style-type: none"> <li>- have advanced knowledge of basin analysis, processes of sedimentation and their variations in the geological past, and feedbacks in the Earth system</li> <li>- are able to expand a subject-specific system in depth</li> <li>- acquire the ability to recognize interdisciplinary geoscientific relationships in the Earth system</li> <li>- acquire the ability to critically analyze, interpret, and present data</li> </ul>			
Module examination (number, form, scope)	An examination of the following forms: Oral exam, 30 minutes Written exam, 90 minutes			
Self-learning time (in time hours)	85			
Events (teaching forms)	Contact time (in semester hours)	Secondary examination (number, form, scope)		Partial module examination accompanying the course (number, form, scope)
		For the completion of the module	For admission to the module examination	
Lecture and exercise (lecture and exercise)	2V+2T	-	Exercises (80%)	-
Field trip (exercise)	7 days	Report (10-12 pages)	-	-
Frequency		Winter semester		
Prerequisite for participation in the module		None		
Teaching unit(s)		Geosciences		