

GEW-MC02 Tectonics and Geodynamics		Number of credit points (LP): 6		
Module type (mandatory or elective module)	Core module			
Contents and qualification objectives of the module	<p><b>Contents</b></p> <p>This module aims to familiarize students with current ideas about the structure and mechanical behavior of the lithosphere, in terms of its thermal structure and rheology. The forces driving plate tectonics, the rheology of the lithosphere, the dynamics of orogenic processes and numerical modeling of lithospheric deformation, and the couplings of mantle dynamics and surface processes are covered.</p> <p><b>Qualification goals</b></p> <p>Students</p> <ul style="list-style-type: none"><li>- gain an understanding of the structure and dynamics of the lithosphere and the forces that drive its deformation</li><li>- gain familiarity with modern quantitative methods for observing and modeling the deformation of the lithosphere and its driving forces</li><li>- learn to analyze modern research questions in tectonics and geodynamics by studying the literature on a chosen topic</li></ul>			
Module examination (number, form, scope)	An examination of the following forms: Portfolio examination, consisting of: Report (10-12 pages) and associated presentation (10-15 minutes) on a chosen topic. Oral exam, 30 minutes Written exam, 90 minutes			
Self-learning time (in time hours)	120			
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%)	-
Frequency		Winter semester		
Prerequisite for participation in the module		None		
Teaching unit(s)		Geosciences		