

GEW-MF21 Advanced Petrology and Age Determination		Number of credit points (LP): 12		
Module type (mandatory or elective module)	Advanced module			
Contents and qualification objectives of the module	Contents In-depth and comprehensive treatment of orogenic processes, metamorphic and magmatic processes and petrology of crystalline rocks, using geological maps, chemical analysis and dating methods. In-depth and applied treatment of geochronology: in situ methods, laser ablation, isotope analysis and mass spectrometry, data interpretation, calculation and interpretation of isotope data. Qualification goals Students <ul style="list-style-type: none">- gain the ability to collect observations from the field and from laboratory analyses and transfer them to models- learn the professional and practical use of age determination methods- are able to analyze and interpret the data they have collected and transfer them to geoscientific models in order to understand processes in the Earth system on different length and time scales			
Module examination (number, form, scope)	An examination of the following forms: Oral exam, 30-45 minutes Report, max. 25 pages Portfolio examination, presentation (20 min) and accompanying report (max. 20 pages)			
Self-learning time (in time hours)	240			
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 I (lecture and exercise)	2V+2T	-	-	-
Lecture and (field) exercise II (lecture and exercise)	2V+2T	-	-	-
Frequency		Winter semester (V+T I) and summer semester (V+T II)		
Prerequisite for participation in the module		None		
Teaching unit(s)		Geosciences		