

<b>Module title</b>		<b>Abbreviation</b>
Introduction to Programming in Earth Observation		04-GEO-MB2-242-m01
<b>Module coordinator</b>		<b>Module offered by</b>
holder of the Professorship of Remote Sensing		Institute of Geography and Geology
<b>ECTS</b>	<b>Method of grading</b>	<b>Only after succ. compl. of module(s)</b>
5	numerical grade	--
<b>Duration</b>	<b>Module level</b>	<b>Other prerequisites</b>
1 semester	graduate	--
<b>Contents</b>		
Theoretical basics and practical examples of programming and geostatistics focused on application within Remote Sensing and GIS are provided. Basic functionality such as script structure, implementation, functions, loops as well as programming syntax using the R language are introduced. Moreover, statistical basics related to environmental analysis are covered such as Random Forest or spatial queries.		
<b>Intended learning outcomes</b>		
Introduction to programming and geostatistics for environmental data analysis.		
<b>Courses</b> (type, number of weekly contact hours, language – if other than German)		
Ü (4) Module taught in: English		
<b>Method of assessment</b> (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus)		
a) presentation (approx. 30 minutes) or b) preparing a poster (approx. 10 hours total) or c) term paper (approx. 15 pages) Language of assessment: English or German (assessment will be held in English; in addition, the examiner may, where possible, decide to hold assessment in German) creditable for bonus		
<b>Allocation of places</b>		
--		
<b>Additional information</b>		
--		
<b>Workload</b>		
150 h		
<b>Teaching cycle</b>		
--		
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)		
--		
<b>Module appears in</b>		
Master's degree (1 major) Applied Earth Observation and Geoanalysis (EAGLE) (2024)		