

Module title		Abbreviation
Applications of Remote Sensing in Geography		04-Geo-FERNA-152-m01
Module coordinator		Module offered by
holder of the Professorship of Remote Sensing		Institute of Geography and Geology
ECTS	Method of grading	Only after succ. compl. of module(s)
5	numerical grade	--
Duration	Module level	Other prerequisites
1 semester	undergraduate	--
Contents		
<p>The lecture imparts basic knowledge about the analysis of remote sensing data for geographical questions. First, fundamental understanding of remotely sensed data as geoinformation and later geoinformation in general (geographical data, metadata, spatial overlaying of geodata, geographical information systems) is given. Following topics are analogue, visual image interpretation, digital image processing (calibration, transformation, filter) and atmospheric correction. A focus lies on the digital remote sensing based mapping, i.e. spectral analysis, classification and change detection. Furthermore, basics in modelling of remote sensing parameters is conveyed.</p>		
Intended learning outcomes		
<p>The students explain applications of earth observation and remote sensing. They explain geographical data and reflect their essential characteristics. They summarise fundamental aspects of (digital) image processing and assess different methodological approaches for the evaluation of remote sensing data for geographical questions.</p>		
Courses (type, number of weekly contact hours, language – if other than German)		
V (2) + T (2) Module taught in: German and/or English		
Method of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus)		
written examination (approx. 45 minutes) Language of assessment: German and/or English creditable for bonus		
Allocation of places		
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Additional information		
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Workload		
150 h		
Referred to in LPO I (examination regulations for teaching-degree programmes)		
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Module appears in		
<p>Bachelor' degree (1 major) Geography (2015) Bachelor' degree (1 major) Computer Science (2015) Bachelor' degree (1 major) Mathematics (2015) Bachelor's degree (1 major, 1 minor) Geography (Minor, 2015) Bachelor's degree (1 major, 1 minor) Geography (Focus Physical Geography) (2015) Bachelor's degree (1 major, 1 minor) Geography (Focus Human Geography) (2015) Bachelor's degree (2 majors) Geography (2015) Bachelor's degree (1 major, 1 minor) Geography (2017) Bachelor' degree (1 major) Computer Science (2017) Bachelor' degree (1 major) Computer Science (2019) Module studies (Bachelor) Geography (2020)</p>		



Bachelor' degree (1 major) Computer Science und Sustainability (2021)
Bachelor' degree (1 major) Artificial Intelligence and Data Science (2022)