

<b>Module title</b>		<b>Abbreviation</b>
Digital Image Analysis and GIS		04-GEO-MB1-162-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>		
<p>The module comprises the following practical topics: Managing and geoprocessing of raster and vector data including digitization and analysis/ visualization of geodata / preprocessing of optical remote sensing data (geometric and atmospheric corrections, dimension reduction) / different approaches, algorithms, sampling and validation strategies for validation / change detection, vegetation indices / basics in the derivation of geophysical and biophysical parameters (e.g. LAI, FAPAR, Chlorophyll content of leaves, Land Surface Temperature, Surface Albedo)</p>		
<b>Intended learning outcomes</b>		
<p>The seminar aims at improving the methodological skills of the participants in digital image processing and the use of Geographical Information Systems.</p>		
<b>Courses</b> (type, number of weekly contact hours, language – if other than German)		
<p>Ü (2) Module taught in: English</p>		
<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)		
<p>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</p>		
<b>Allocation of places</b>		
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<b>Additional information</b>		
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<b>Workload</b>		
150 h		
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)		
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<b>Module appears in</b>		
<p>Master's degree (1 major) Applied Earth Observation and Geoanalysis (EAGLE) (2016) Master's degree (1 major) Applied Earth Observation and Geoanalysis (EAGLE) (2018) Master's degree (1 major) Applied Earth Observation and Geoanalysis (EAGLE) (2021)</p>		