**Module title**  
Digital Image Analysis and GIS  

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<th>Abbreviation</th>
<th>04-GEO-MB1-162-m01</th>
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**Module coordinator**  
holder of the Professorship of Remote Sensing  

**Module offered by**  
Institute of Geography and Geology  

**ECTS**  
5  

**Method of grading**  
numerical grade  

**Duration**  
1 semester  

**Module level**  
graduate  

**Other prerequisites**  
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## Contents

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)

## Intended learning outcomes

The seminar aims at improving the methodological skills of the participants in digital image processing and the use of Geographical Information Systems.

## Courses  
 Ü (2)  
Module taught in: 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)

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

## Allocation of places

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## Additional information

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## Referred to in LPO I  
(examination regulations for teaching-degree programmes)

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## Module appears in

- Master’s degree (1 major) Applied Earth Observation and Geoanalysis (EAGLE) (2016)
- Master’s degree (1 major) Applied Earth Observation and Geoanalysis (EAGLE) (2018)