Module title
Applications of Remote Sensing in Geography

Abbreviation
04-Geo-FERNA-152-m01

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
undergraduate

Other prerequisites
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Contents
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.

Intended learning outcomes
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.

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