Department: 08 Geoinformatics

Course title: Remote Sensing 1

Hours per week (SWS): 4

Number of ECTS credits: 5

Course objective: After attending this course, students understand the basic methods of classifying remote sensing data. They are capable of addressing the key issues of remote sensing in a wider geoinformation context. They are able to work in a team.

Prerequisites: Mathematics: matrices, linear equation system, 3D transformation, homogeneous coordinates
Digital image processing: linear filters, histogram-based image segmentation, color spaces, image equalization
Statistics: Stat. Characteristic values (standard deviation, covariance, correlation coefficient)


Teaching methods: DozentInnenvortrag; E-Learning-Material; Präsentation; praxisbezogene Projektarbeit; Übung

Assessment methods: Written exam

Language of instruction: English / Deutsch

Name of lecturer: Prof. Dr.-Ing. Andreas Schmitt / Prof. Dr. rer. nat. Peter Kammerer / MSc. Yrneh Ulloa Torrealba

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Link: https://www.geo.hm.edu/kontakt/prof/kammerer/index.de.html,
https://www.geo.hm.edu/kontakt/mitarbeiterinnen/ulloa_torrealba/index.de.html

Course content: The module teaches:
⦁ Physical basics
⦁ Optical Sensor Systems, Synthetic Aperture Radar
⦁ Use of remote sensing data from the Sentinel mission
⦁ Preprocessing of remote sensing data
⦁ Fundamentals of classification

Remarks: 2 SWS Übung in English (Kammerer & Ulloa) + 2 SWS lecture in German (Schmitt) - current planning status