Courses in English
Course Description

Department	08 Geoinformatics
Course title	**Remote Sensing (Course Number MG12)**
Hours per week (SWS)	4
Number of ECTS credits	5
Course objective	Learn about current developments in the context of Remote Sensing, especially: innovative methods and algorithms for digital image processing, information extraction from special remote acquisitions, visualization oof remote sensing data, sensor fusion for the optimization of the results, and the the temporal and financial effort for the implementation of remote sensing based projects.
Prerequisites	Basics of Remote Sensing and Digital Image Processing, Knowledge on Multispectral Remote Sensing, Classification, GIS, Programming skills, Statistics.
Recommended reading	Chuvieco, E,& Heute, A. (2010): Fundamentals of Satellite Remote Sensing.-CRC PressLiu, J. G. & Mason, P.J. (2016): Essential Image Processing and GIS for Remote Sensing.-Wiley-BlackwellLillesand, T. M., Kiefer, R.W.,Chipman, J. W.(2015): Remote sensing and image interpretation.-6. Edition, Wiley. Further literature on Moodle.
Teaching methods	Discussion, Excursion, Explorative Learning, Seminar, Practice.
Assessment methods	Project thesis (voluntary) & Written Exam
Language of instruction	English
Name of lecturer	Prof. Dr. Andreas Schmitt
Email	andreas.schmitt@hm.edu
Link	https://www.geo.hm.edu/kontakt/prof/prof__dr__andreas_schmitt/index.de.html
Course content	Color space transformations, Image enhancement, Special methods and algorithms for the classification of high-resolution remote sensign data, Object-oriented classification of raster data, special methods for the classification fo hyperspectral data, methods of image fusion, Combination of remote sensing with other geodata, Inclusion of remote sensing in geoinformation systems, possibilities and limits of the visualization of remote sensing data, methods and procedures of radar remote sensing, and excursions to reasearch institutions or companies (if applicable).
Remarks	Mandatory subject in the first semester of the master program.