



Institut für Geographie  
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## *Small field seminar PG/KG*

# **(Digital) Ground truthing for remote sensing**

*Prof. Dr. Matthias Braun; Dr. Johannes Fürst*

**Study programs:** B.Sc. PG / B.A. KG

**ECTS:** 2 (3-4 days)

**Number of participants:** 20-25

**Language:** English on demand

**Content:** Field surveys are often an important part of remote sensing or other geographic studies. Depending on the topic to be studied, they can include various different survey techniques. In the class, you will get to know different field techniques and learn to handle different survey equipment. The techniques cover a standardized land use / land cover survey, techniques to measure e.g. leaf area index, spectrometry, GPS surveys with different degrees of precision. Students will work in groups and do the surveys themselves. The data acquired in this class may be used in class projects such as the "Introduction to Satellite Remote Sensing".



### **Aim of the class:**

- Learn what to consider for efficient field surveys
- Learn how to use digital devices for mapping (tablet PCs) to generate GIS-ready survey results
- Get to know scientific measurement devices and techniques
- Understand the measurement principles of these devices and the subsequent analysis steps
- Get an idea of the possibilities, limitations and efforts for ground truthing

**Entry requirements:** Basic GIS knowledge, lecture GIS & Remote Sensing

**Assessment:** Documentation of the mapping result as GIS-map as well as a short write-up and analysis of acquired data (e.g. DGPS, LAI).

**Start of class / first meeting:** see UniVIS

**class schedule:** 1-2 joint field days, 1-2 field days in group, 1-2 meetings for preparation and data processing

**Costs:** The excursion will take place in the ER-N-FO region. All surveys can be done either by bicycle or with student cars.