

Advanced methods MSc/MA (MV-MSc)

## Scripting for Remote Sensing of the Environment (MSc-Sem)

Dr. Johannes Fürst

(Contact: [johannes.fuerst@fau.de](mailto:johannes.fuerst@fau.de))

Institut für Geographie

JOHANNES FÜRST

Master seminar, ECTS-Studies, 2 SWS

Teaching language is English, bei Bedarf Deutsch  
5 ECTS

Wetterkreuz 15, 91058 Erlangen

Tel. +49 9131 85-26680

Fax +49 9131 85-22013

[www.geographie.uni-erlangen.de](http://www.geographie.uni-erlangen.de)

Time: Tuesday 8:15 – 9:45

Place: Tennenlohe, Room 00.133 (CIP)

Applications of remote sensing frequently demand both a high degree of automation for the processing of numerous data sets and the customization of methods and algorithms. Common software packages for an analysis of Earth observation data often do not provide the required flexibility. In this class, you will thus learn how to use the R language ([r-project.org](http://r-project.org)) for batch processing of satellite imagery and how to write your own customized functions to complement existing functionalities.

This class recalls your basic knowledge in geomatics and statistics and gives an introduction to the processing and analysis of Earth observation data in R. We first implement basic remote sensing techniques in software scripts for a practical analysis of satellite imagery. Subsequently, you will learn how to write customized functions and how to use loops for automated data processing. After a successful completion of this class you are able to independently implement script-based analyses in the R environment.

Don't panic! This class is designed for persons that do not have a background in informatics. Please contact Johannes Fürst if you are interested in an analysis of Earth observation data and geomatics but are not familiar with the R language.

For further administrative details please consult <http://univis.fau.de>.

