



Universität Potsdam

REMOTE SENSING, GEOINFORMATION AND VISUALIZATION

Master of Science

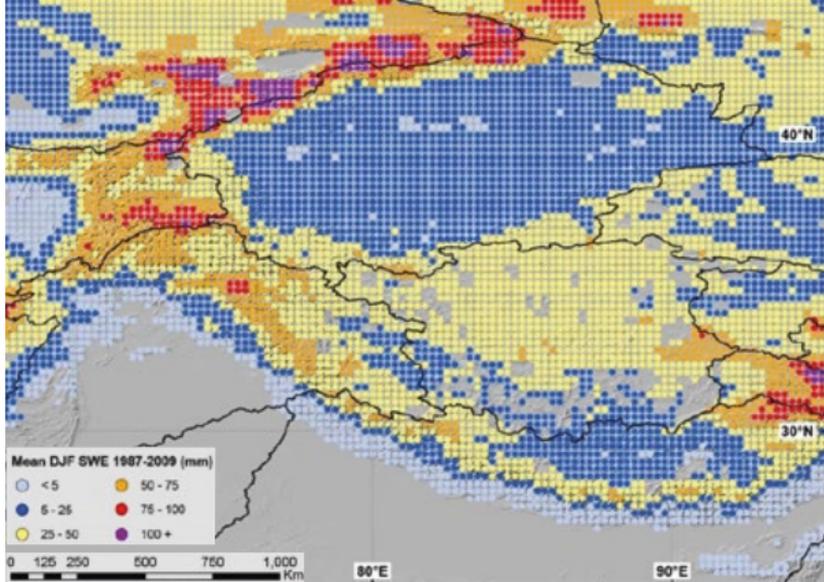
Program Content

In the Remote Sensing, geoInformation and Visualization master's degree program, you will develop an advanced understanding of remote sensing in theory and practice. The program begins by addressing fundamental principles in the recording and processing of spatial data as they are typically gathered by means of remote sensing methodologies. The program teaches advanced scientific principles of physics, chemistry, and biology to quantify environmental process, the recording of remote-sensing data and their interaction with the environment, as well as practical skills in the application of modern data-processing methods. The program will give you an overview and in-depth understanding of remote-sensing technologies, data and processing. You will learn how to apply these technologies and methods to specific problems in environmental-science scenarios.

We use modern data visualization tools to prepare our data, for example in the generation of prognoses, scientific communication, and the comprehensible presentation of data to representatives from other disciplines as well as non-specialist decision-makers. The program thereby offers a comprehensive, interdisciplinary understanding of, as well as a critical perspective towards, the solution and evaluation of geoscientific questions.

Objective and Future Career Options

In addition to application-oriented specialist knowledge in the fields of remote sensing, geoinformation and visualization, a Master of Science degree in our field puts you in a position to define scientific problems, formulate suitable hypotheses, design research projects, to apply for research funding, and to administer scientific projects.



Future fields of work include positions in public administration, such as in municipal, regional and land use planning; natural disaster management and response, as well as environmental monitoring; research in the university and in institutions outside universities. Diverse employment opportunities are also possible in the IT industry, for example in software development in the field of digital mapping; in the insurance and real estate industry; the construction industry; the transportation industry; and in the leisure and tourism sectors.

Program Structure

In the four-semester master's program, you will earn a total of 120 credit points (CP), consisting of the following modules and your master's thesis:

Modules	
Mandatory modules	30 CP
Remote Sensing of the Environment	6 CP
Earth System Science	6 CP
Data Analysis and Statistics	6 CP
Geoinformation Systems	6 CP
Visualization and Communication	6 CP

Modules	
Elective modules	60 CP
Modules adding up to 60 credit points must be successfully completed, whereby at least one module must be completed for each of following groups of electives:	
„Remote Sensing Methods“ (RSM) electives	
„Objects of Observation“ (OBS) electives	
„Data Analysis and Programming“ (DAP) electives	
„Geoinformation Systems and Applications“ (GIS) electives	
„Visualization and Communication Methods“ (VCM) electives	
Master's Thesis, including Oral Defense	30 CP
Total	120 CPs

Study and Research Environment

The Remote Sensing, geoInformation and Visualization master's degree program at the University of Potsdam offers a diverse array of opportunities for specialization in the design of custom-made plans for study. Practical components of the program also offer you the opportunity to acquire professional and research-oriented competences, thereby facilitating a smoother entry into your future career. Our close cooperation with industry and research institutions both in Germany and abroad – such as the nearby Helmholtz Center Potsdam - Research Center for Geosciences, Potsdam Institute for Climate Impact Research, Institute for Advanced Sustainability Studies and the Alfred Wegener Institute of Potsdam – also contributes to this effort.

Admission Requirements

Admission to the Remote Sensing, geoInformation and Visualization master's degree program requires a qualifying university degree in earth science, physics, mathematics, biology, chemistry, or computer science, or a thematically adjacent degree, with a standard course length of at least three years including at least 36 credit points (CPs) in earth science, biology, physics, chemistry, or computer science, of which at least 12 CPs are in the subjects of physics, chemistry, or biology. An additional 12 CP of mathematics coursework must also be documented. Moreover, your English language skills must correspond at least to the B2 level of the Common European Framework of Reference for Languages.

You can read more about the subject-specific admission requirements in the respective Admission Regulations:

www.uni-potsdam.de/en/studium/studying/legal-foundations/zulassungsordnungen-fuer-master

Application

For information about application please visit:

www.uni-potsdam.de/en/studium/application-enrollment/application-master

Further Information

Program Page:

www.uni-potsdam.de/en/mnfakul/study-and-teaching/master/remote-sensing-geoinformation-and-visualization

Subject-specific Degree Regulations:

www.uni-potsdam.de/en/studium/studying/legal-foundations/studyregulations



Consultation & Contact

Departmental Student Advisor

The Student Advisory Service is there for you.

You can find our current contact information here:

[www.uni-potsdam.de/en/studium/
advising-and-services/index-a-z/geowissenschaften](http://www.uni-potsdam.de/en/studium/advising-and-services/index-a-z/geowissenschaften)



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