Geosciences

Degree conferred
Scientiarum doctor in geoscientia / Doctor of Philosophy in Geosciences (PhD)

Commencement of studies
An application for admission may be submitted at any time.

Regulation
https://studies.unifr.ch/go/1Q *(French and German only)*

Application procedure
Candidates with Swiss qualifications
https://studies.unifr.ch/go/Ui3b4
Candidates with foreign qualifications
https://studies.unifr.ch/go/2KPbe

Fribourg profile

The Department of Geosciences offers doctoral programmes in various fields of Geosciences.

Research orientations
Research in Geosciences at the University of Fribourg includes the dynamics and evolution of the cryosphere (ice sheet, glacier, permafrost, snow), the periglacial and geomorphologic environment of mountains, land-atmosphere interactions and climate change. Our approaches include both measuring and modelling techniques, including geophysical techniques, remote sensing, micrometeorological methods and numerical and statistical modelling. Applications are worldwide, but predominantly in remote, cold regions, including the Alps, Scandinavia, Andes, Central Asia, Himalayas, Antarctica, Svalbard and Greenland.

Contents of doctoral programme
The central part of the doctoral programme is a personal research project which the candidate conducts under supervision during a period of 3-4 years. The final product of the doctoral programme is the PhD thesis. The candidate's research can be part of ongoing research projects within the Department of Geosciences, but can also be a single-standing study relevant to the research expertise in one of the various research groups. In addition, candidates also participate in lecture series, professional development courses, publication projects, national and international conferences and may be involved in teaching activities.

Acquired competences
– developing in-depth knowledge in a field of Geosciences by mastering specific knowledge, methodological concepts and analytical methods;
– completing high-quality personal scientific research as part of large-scale research projects;
– making an innovative contribution to the chosen field and critically evaluating knowledge;
– teamworking and communicating with the specialised scientific community and society at large.

Positions for doctoral candidates
Open positions for doctoral candidates are advertised on the website of the Department of Geosciences (https://www3.unifr.ch/geo/en/department/jobs/). Alternatively, interested candidates can also contact a supervisor of the Geosciences Department and state their interest or propose a research project.

Funding and salary
Doctoral research is either financed through assistant positions within the Department, or through third party funding acquired by the supervisor or the doctoral candidate him/herself. Salaries of employed doctoral candidates correspond to the standards of the Faculty of Science and Medicine.

Supervisors
PhD theses are supervised by professors and senior researchers within the Department of Geosciences:

- **Prof. Reynald Delaloye**

– Mountain geomorphology
– Periglacial geomorphology
– Permafrost-related processes

- **Prof. Christian Hauck**

– Applied geophysics
– Permafrost processes and modelling
– Land-atmosphere interaction

- **Prof. Martin Hoelzle**

– Alpine cryosphere

- **Dr Matthias Huss**

– Glaciers and climate change
– Mass and energy balance of glaciers

- **Dr Horst Machguth**

– Ice sheets, glaciers and climate
– Ice sheet surface processes
– Arctic glaciology

For a complete and updated list of research activities check the link to the website of the Department of Geosciences (see Contact).

Studies organisation

Structure of studies

No ECTS credits can be earned.

Doctoral school

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Admission

In order to be admitted to a doctorate the candidate must have been awarded an academic **bachelor's and master's degree** or an equivalent qualification from a university recognised by the University of Fribourg.

Before applying for a doctorate the candidate must contact **a professor** who would be willing to supervise the thesis work.

There is **no general right** to be admitted to a doctorate.

The respective conditions of admission for each doctoral study programme are reserved.

Contact

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http://studies.unifr.ch/go/geosciences-research

Doc- Postdoc-portal

http://www.unifr.ch/phd