Earth Sciences

Degree conferred
Scientiarum doctor in scientiis terrarum / Doctor of Philosophy in
Earth Sciences (PhD)

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

Regulation
http://studies.unifr.ch/go/Pm-6g (French and German only)

Application procedure
Candidates with Swiss qualifications
http://studies.unifr.ch/go/0bJpN
Candidates with foreign qualifications
http://studies.unifr.ch/go/4a2qV

Fribourg profile
The Earth Sciences Unit of the Department of Geosciences offers
doctoral programmes in various fields of Earth sciences.

Areas of research
The Earth Sciences Unit's activities are developing in several fields.
One key focus is research on the understanding of carbonate rock
formation processes (sedimentology) and the study of the evolution
of living organisms (palaeontology and micropalaeontology). These
approaches contribute to an understanding of palaeoenvironments,
their evolution over time and interactions between the geosphere
and the biosphere.
The tectonic group is investigating the formation of mountain ranges
and rock deformation mechanisms.
Others are studying the properties of mineral materials and rocks
(petrology). This approach has applications in both industrial
development and environmental protection (applied mineralogy).
Archaeometry studies the materials used by man in the past to
reconstruct ancient technologies and exchange networks.

Contents of the doctoral programme
The PhD programme focuses on a personal research project
conducted under the supervision of a professor over a period of
three to four years. The final product is a doctoral thesis, which is
an original written document meeting the requirements for scientific
publication. As a general rule, doctoral research projects fall within
one of the research orientations of one of the unit's professors.
They include field work in Switzerland or abroad in addition to
laboratory work. During their research, PhD students participate in
national and international conferences and prepare publications.
They also participate in teaching (practical assignments, field
camps, supervision). PhD students are strongly advised to
participate in conference cycles, professional development courses
and CUSO doctoral school activities.

Competences acquired
– Developing in-depth knowledge in a field of Earth sciences by
  mastering specific knowledge, methodological concepts and
  analytical methods;
– Completing high-quality personal scientific research as part of a
  large-scale research project;
– 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 are published on the Earth Sciences Unit website
(https://www3.unifr.ch/geo/en/department/jobs/). Interested persons
can also contact the unit's professors to express their interest or
propose a research project.

Funding and salary
Doctoral research is financed through a job as an assistant within
the unit or by outside funds obtained by the thesis supervisor. PhD
students’ pay is determined according to the university's salary
scale.

Supervisors
PhD theses are supervised by professors and senior researchers
from the Earth Sciences Unit:

• Prof. Bernard Grobéty
  – Applied mineralogy
• Prof. Vincent Serneels
  – Archaeometry
• Prof. Annelleen Foubert
  – Carbonate sedimentology
• Prof. Walter Joyce
  – Palaeontology
• Adj.Prof. Jon Mosar
  – Tectonics - Geology
• Dr Silvia Spezzaferri
  – Micropalaeontology
• Dr Afifé El Korh
  – Metamorphic petrology

In the field of palaeontology, there is close collaboration with the
Jurassica Museum in Porrentruy (Dr Damien Becker and Dr Olivier
Maridet).

Studies organisation
Structure of studies

No ECTS credits can be earned.

Doctoral school

https://earth-processes.cuso.ch
https://mineral.cuso.ch

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 by an 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