

Is nature
still hiding
some of its
secrets?

master of science (MSc) in geology

GENERAL OUTLINE

Objectives

The Master of Science in Geology allows students to benefit from advanced teaching in different specialist fields of geology according to the chosen orientation, namely:

- Sedimentary Geology, Environmental Geology, Geology of Reservoirs
- Geochemistry, Alpine Tectonics, Metalliferous Deposits
- Geological Risks

Regardless of which orientation is followed, students receive in-depth training in field work and numerous analytical techniques, as well as in the processing of quantitative data and modelling.

Skills development and career prospects

In addition to specialist academic knowledge and abilities, the Master of Science in Geology develops a large number of skills such as: oral and written communication, discernment, analytical and summarising skills, research experience, acquisition and transmission of knowledge, independence and the ability to form judgements.

This range of skills, combined with specialist knowledge acquired during studies, prepares students for a very varied range of professions and careers, including:

- Consultants in Applied Geology
- Environmental Consultants
- Oil Industry Research
- Mining Industry
- Engineering Industry
- Cantonal/Federal Administration
- Academic careers

GENERAL INFORMATION

Organiser

Lake Geneva School of Earth Sciences:
www.geoleman.ch
(Faculty of Sciences of the University of Geneva and Faculty of Geosciences and Environment of the University of Lausanne)

Degree awarded

Master of Science (MSc) in Geology

ECTS credits

120

Duration

4 semesters

Teaching language

French/English

Enrolment

The candidate's application must be submitted to the Admissions Department before the final date:
www.unil.ch/immat

Contact

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EDUCATIONAL CONTENT

Description

The orientation **Sedimentary Geology, Environmental Geology and Geology of Reservoirs** focuses on the analysis of sedimentary basins through different disciplines (stratigraphy, micropaleontology, seismology, modelling, geochemistry). It introduces students to the science of petrology and the management of natural resources viewed from an environmental perspective.

The orientation **Geochemistry, Alpine Tectonics, Metalliferous Deposits** concerns the study of mountain areas in all their complexity. This includes an in-depth understanding of the processes of petrology, geochemistry and tectonics; the ability to integrate diverse scientific information in the resolution of concrete problems; practical expertise in field work in orogenic areas, and in structural analysis, calculation and modelling methods. The orientation offers a scientific basis for finding and evaluating natural resources (mineral, fluid) while at the same time assessing and attenuating the environmental impact of their exploitation.

The orientation **Geological Risks** offers the chance to specialise in numerous aspects of environmental geology and geological risks, particularly risk management, flood risks, seismic risks, risk of landslips and volcanic eruptions, risk modelling. The orientation provides a scientific grounding in physicochemical processes while at the same time providing the tools needed to assess and attenuate their impact on the environment.

Examinations

Course assessments may take the form of written or oral examinations, practical work, exercises, seminars or reports. The Master's dissertation is a research work assessed on the basis of the Master's project, the submitted manuscript and its oral defence.

SYLLABUS

1st-2nd semesters

Compulsory courses
24 ECTS credits

Optional courses

36 ECTS credits

3rd-4th semesters

Master's dissertation: research project (field work, laboratory analysis, etc, and drafting of the manuscript)
60 ECTS credits

Mobility

Subject to the prior agreement of the mobility Commission, students enrolled on a Master's cycle may study for one or two semesters in an institution recognised by UNIL while continuing to be registered with the University of Lausanne.

PRACTICAL INFORMATION

Admission requirements

Candidates must be holders of a Bachelor of Science in Geosciences and Environment, subject area Geology, awarded by the University of Lausanne, or of a Bachelor of Science in Earth Sciences awarded by the University of Geneva. Another degree or academic title may be judged equivalent and give access to the master's degree course, with or without further conditions.

Regulations and additional information concerning the course

Web site of the Lake Geneva School of Earth Sciences (ELSTE):
www.geoleman.ch
Web site of the Faculty of Geosciences and Environment:
www.unil.ch/gse

Final enrolment date

30 April

Candidates needing a visa to study in Switzerland: 28 February. This particular time limit is applicable to enrolment at the UNIL only.
Fees per semester are CHF 580.-.

Start of courses

mid-September

Part-time Master's degree

See Directive 3.12:

www.unil.ch/interne/page44629.html#3

Academic calendar

www.unil.ch/central/page4804.html

General information on studies, career prospects and guidance

Guidance and advisory service:
www.unil.ch/soc

Accommodation and financial assistance

Office for socio-cultural affairs:
www.unil.ch/sasc

International students

www.unil.ch/international

Study abroad possibilities

www.unil.ch/echanges



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et de l'environnement