



ELSTE

# Master of Science (MSc) in Geology A joint Master UNIGE - UNIL

## GENERAL INFORMATION

### Organisers

Ecole Lémanique des sciences de la Terre (ELSTE - Lake Geneva School of Earth Science)

[www.geoleman.ch](http://www.geoleman.ch)

Faculty of Sciences of the University of Geneva and Faculty of Geosciences and Environment of the University of Lausanne

### Admission requirements

Candidates must be holders of a Bachelor of Science in Earth Sciences awarded by the University of Geneva or a Bachelor of Science in Geosciences and Environment, subject area Geology awarded by the University of Lausanne.

Another degree or academic title may be judged equivalent and give access to the Master's degree course, with or without further conditions.

### Degree awarded

Master of Science (MSc) in Geology

### Number of credits

120 ECTS credits

### Duration

4 semesters

### Teaching language

French/English (the entire program can be taken in English).

## PROGRAM

### Objectives

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

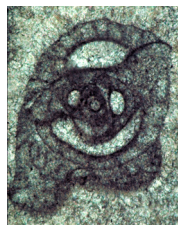
- » SERG  
Sedimentary, Environmental and Reservoir Geology
- » GATO  
Geochemistry, Alpine Tectonics, Ore Deposits
- » RGEOL  
Geological Risks

complexity. This includes an in-depth understanding of petrology, geochemistry and tectonics; the ability to integrate diverse scientific information in the resolution of concrete problems; practical expertise in analytical methods, laboratory work, and 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 **RGEOL** offers the opportunity to specialise in various aspects

### Description



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

of geological risks, from hazard to risk assessment. The orientation includes in particular seismic risk, risk of landslides, volcanic risk and risk management. The orientation provides a scientific grounding in physical processes while at the same time providing the tools needed to assess and attenuate their impact on the communities, ecosystems and built environment.



The orientation **GATO** focuses on the study of mountain areas in all their

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.

## PRACTICAL INFORMATION

### Enrolment

The candidate's application must be submitted to the Admission Department of the concerned university before the final date.

UNIGE: [www.unige.ch/dife/sinscrire/Immatenglish-1.html](http://www.unige.ch/dife/sinscrire/Immatenglish-1.html)

UNIL: [www.unil.ch/immat/en/home/menuinst/futurs-etudiants/master.html](http://www.unil.ch/immat/en/home/menuinst/futurs-etudiants/master.html)

Deadlines: April 30th. Candidates needing a visa to study in Switzerland: February 28th.

Start of courses: mid-September.

### International students

UNIGE: [www.unige.ch/international](http://www.unige.ch/international)

UNIL: [www.unil.ch/international](http://www.unil.ch/international)

### Scholarships

UNIGE: [http://www.unige.ch/sciences/Enseignements/Formations/Masters/ExcellenceMasterFellowships\\_en.html](http://www.unige.ch/sciences/Enseignements/Formations/Masters/ExcellenceMasterFellowships_en.html)

UNIL: <http://www.unil.ch/international/en/home/menuguid/pour-futurs-etudiants/bourses-de-master-de-lunil.html>

Be aware that the grants are available only in the university the student is enrolled in.

### Contact

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## GENERAL STRUCTURE OF THE MASTER

Part A: 24 **mandatory** ECTS credits dispatched in 4 modules

Part B: a **choice** of 24 ECTS credits  
4 modules of 6 ECTS credits to be chosen in a predefined list

Part C: 12 **free choice** ECTS credits

**Master thesis:** 60 ECTS credits

Project of Master: 10 ECTS credits

Master thesis and defense: 50 ECTS credits

## SKILLS DEVELOPMENT AND CAREER PROSPECTS

In addition to specialised 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 specialised knowledge acquired during studies, prepares students for a diverse range of professions and careers, including:

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