

Master in Earth, planetary and environmental sciences

Georesources 1st and 2nd year

Presentation

To meet the energy and material demands of the 21st century, sustainable exploration of our planet's resources is necessary, managed by exploration specialists with solid knowledge in geology and geophysics. The Georesources program has been created to respond to this need. The training is organised over two years with a series of modules in common with other programs in the specialisation, as well as modules specific to this program. Training in the field, in a company or in a research laboratory plays a key role in this program.

The aim of the Georesources program is to train students in geology and geophysics, with a view to working in research and/or the private sector in mining exploration or energy resources.

The Georesources+ option gives students the opportunity to take additional courses in the economics of energy and resources, offered by the master in Economy for energy and sustainable development.

Registration and scholarships

- The 1st year is open to students who have obtained a national diploma equivalent to a bachelor degree (licence) in a field compatible with that of the Master, or via a validation of their studies or experience
- Entry to the 2nd year may be selective. It is open to candidates who have completed the first year of a master in the field, subject to a review of their application

Public continuing education : You are in charge of continuing education :

- if you resume your studies after 2 years of interruption of studies
- or if you followed training under the continuous training regime one of the previous 2 years
- or if you are an employee, job seeker, self-employed

If you do not have the diploma required to integrate the training, you can undertake a [validation of personal and professional achievements \(VAPP\)](#)

For candidates whose country of residence is not included in the "Studies in France" portal (PEF) scheme, the calendar for the eCandidat application campaigns is available [here](#)

You want to apply and sign up for a master ? Please be aware that the procedure differs depending on the diploma you want to take, the diploma you have already obtained and, for foreign students, your place of residence. Let us be your guide – simply follow this [link](#)

Further studies

This course prepares students either to continue in the private sector working for a mining or oil company or in the services sector of this industry, or to go on to do a doctoral thesis. The skills acquired in this course will provide the student with the experience needed to successfully pursue either of these two directions.

Practicals informations :

- > Component : UFR PhITEM (physique, ingénierie, terre, environnement, mécanique)

- > level : Baccaalaureate +5
- > Duration : 2 years
- > Course type : Initial and Continuing Education
- > Location(s) : Grenoble - University campus

Contacts

Program director

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Program administration

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Continuing education manager

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Program

Program under construction - awaiting CFVU vote

Solid earth portal 1st year

Semester 7

UE Numerical analysis project	3 ECTS
UE Physics and chemistry of the earth	6 ECTS
UE Geomechanics	3 ECTS
3 option(s) to choose from 8	
UE Dynamics of the Lithosphere	6 ECTS
UE Petrology	6 ECTS
UE Geochemical evolution of the earth	6 ECTS
UE Data and models in earth sciences	6 ECTS
UE Earth Surface Dynamics	6 ECTS
UE Field workshop tectonics-metamorphism	3 ECTS
UE Field course Petrology	3 ECTS
UE Intro workshop - professional project	3 ECTS

Semester 8

UE Scientific and professional communication	3 ECTS
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UE Remote sensing and GIS project	6 ECTS
4 option(s) to choose from 8	
UE Exploration geophysics	6 ECTS
UE Basin analysis	6 ECTS
UE Multidisciplinary field workshop	6 ECTS
UE Mineral resources	3 ECTS
UE Subsurface modelling	3 ECTS
UE Dynamics and volcanic risk	3 ECTS
UE Sedimentary field workshop	3 ECTS
UE Marine geophysical workshop	3 ECTS

Master 2nd year

Semester 9

UE Field geology workshop	3 ECTS
UE Geomechanics in reservoir and basin systems	6 ECTS
3 option(s) to choose from 10	
UE Dynamics of the lithosphere	6 ECTS
UE Petrology	6 ECTS
UE Geochemical and mineralogical exploration methods	6 ECTS

UE Drilling and borehole geophysics	3 ECTS
UE Tectonic field workshop- metamorphism	3 ECTS
UE Petrology field workshop	3 ECTS
UE Tutored project in mineral resources	3 ECTS
UE Advanced mineral ressources	3 ECTS
UE Energy markets and geopolitics of resources	3 ECTS
UE Transition énergétique	3 ECTS

Semestre 10

1 option(s) to choose from 2

UE Research internship

UE Company internship