

Master in Earth, planetary and environmental sciences

The programme offers the following course(s) :

- › Geodynamics
- › Georesources
- › Georisks
- › Geophysics
- › Hydro-resources
- › Atmosphere-Climate-Continental Landmass
- › Master in Earthquake Engineering and Engineering Seismology (MEEES)

Presentation

The Master in Earth, Planetary and Environmental Sciences is a two-year course (for students having completed 3 years of higher education) that teaches high-level skills in the study of processes operating at all scales in the Earth-Environment system.

The course is supported by the research laboratories associated with the OSUG ([Grenoble Universe Sciences Observatory](#)), and the following in particular:

- [Institute of Earth Sciences](#) - ISTerre (Geodynamics, Georesources, Georisks, Geophysics, MEEES Programmes);
- [Laboratory of Glaciology and Environmental Geophysics](#) - LGGE (Atmosphere-Climate-Continental Landmass Programme);
- [Laboratory of the Study of Transfers in Hydrology and Environment](#) - LTHE (Hydro-resources, Hydrohazards, Atmosphere-Climate-Continental Landmass Programmes)

There are also close links with the other laboratories and teams of the OSUG. The OSUG@2020 excellence laboratory includes a training component and supports this course.

This Master is co-accredited by the Université Grenoble Alpes and the National Polytechnic Institute of Grenoble.

The Master is organised around eight programmes (two of which are formally identified as international programmes). Except for the Erasmus Mundus MEEES, all the programmes are defined over the two years of the Master, and students choose a programme when registering for the M1. Nevertheless, progressive specialisation is planned, with a foundation programme for the specialisation, foundation modules for each major of the M1 (Solid Earth; Water-Climate-Environment) and most of the modules (UEs) common to several programmes. It is therefore possible to change programme right up to the end of the M1; the final choice of programme is made when entering the M2.

Objectives

The Master in Earth, Planetary and Environmental Sciences aims to train students in the modern tools of mechanical physics, chemistry and geology that enable a quantitative approach to be applied to Earth and environmental studies, whether regarding geodynamics, climate, natural hazards, soil and water pollution, geological and geophysical exploration, etc., and to draw on a very solid field knowledge when using these

tools. A major challenge is to apply science and new technologies, in particular through the use of modelling, to society's current problems.

None of the programmes specifically has a vocational or research goal; we have instead decided to stress their objectives in terms of skills acquired. Nevertheless, the "Geodynamics" and "Atmosphere-Climate-Continental Landmass" programmes mainly prepare students for doctoral studies. The others are mixed programmes (Research, Development and Innovation) that help prepare students for the labour market after either five or eight years of higher education. The opportunities are:

- after five years (Bac+5) - engineering jobs in large energy and mining companies; consultants in geology, geophysics, environment; local and regional authorities; non-governmental organisations;
- after eight years (Bac+8) - teaching/research in state-owned scientific, technological, industrial or commercial establishments (EPST, EPIC); R&D in large energy and mining companies, environmental research centres, international and national organisations.

Registration and scholarships

The M1 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 M2 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 \(VAPP\)](#).

Knowledge check

In each case: written report + oral defence (public except in cases of confidentiality)

Practicals informations :

- > **School** : UFR PhITEM (physique, ingénierie, terre, environnement, mécanique)
- > **level** : Baccalaureate +5
- > **Duration** : 2 years
- > **Credits** : 120
- > **Course type** : Initial and Continuing Education
- > **Location(s)** : Grenoble - Saint-Martin d'Hères
- > **Contacts** :

Programme director

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Programme administration

Registrar's Office of the Master in Earth, planetary and environmental sciences

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Application

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