



SCIENCE, TECHNOLOGY, HEALTH

M2 Geoengineering

Master Geoenergies



Duration
1 year



Component
Collège
Sciences et
Technologies
pour l'Énergie et
l'Environnement
(STEE)



Language(s)
English

Presentation

The Master of Geosciences offers a classical two-year training in French. Additionally, we offer a one-year training in English for graduate students. This one-year course called 'Geoengineering' (~270 h lecture and 5-6 month internship) will be particularly appreciated by foreign students who wish to reinforce their background in different fields of Petroleum Engineering. This year is also open for regular students who started French classes during their first year in the Master "Of Geosciences".

Apply here from October to March

This Master benefits from a particularly rich environment in geosciences and energy.

The Master is part of the Faculty of Sciences and Technologies for Energy and Environment (STEE). The STEE Faculty has been founded within the framework of the prestigious label I-SITE which granted the project Energy Environment Solutions (E2S).

It also benefits from the immediate surroundings of Carnot ISIFOR (Sustainable Engineering of Georesources) and a national pole for Geosciences and Innovation (Avenia). In addition, Pau hosts dozens of Petroleum companies, including TotalEnergies, Terega, Modis, etc. Pau has

therefore one of the highest concentrations of petroleum engineers and scientists in France.

Objectives

The "**Geoengineering**" program aims to complete the initial training of engineers in the field of Geoenergies with specific competencies in geosciences, reservoir engineering, fluid production, and storage monitoring

This customized one-year training program is composed of courses selected from the 2 paths of the two-year Master program:

The **Geology Geophysics Geoenergies (G3) path** offers an integrated approach, which includes:



- Geological characterization (basin analysis, reservoir characterization, structural and sedimentological)
- Geophysical characterization (acquisition, processing, and interpretation of seismic data)
- Interaction fluids and rocks.
- Well Analysis (well logging and seismic)

The **Engineering Geoenergies (EG) path** proposes:

- To evaluate the deposits discovered
- To optimize their development as well as their production
- To monitor fluids for production and storage



"First-year Master's degree Promotion"

- * Talents' Academy Grants | 
- * Catalogue des Bourses Campus France | 

The International Master Programs Admission Office

master.programs@univ-pau.fr

Organisation

Your university

Skills

At the end of this program, according to their optional choices, the students in the "Geo-energies Master" will be able to:

G3 path

- Acquire, process, and interpret geological and geophysical data
- Exploration of geological targets for geo-energies,

EG path

- Contribute to the operational development and production of reservoirs
- Contribute to the storage and monitoring of fluids dedicated to geo-energies and environmental issues.

Additional information

Scholarships

- * EIFFEL Scholarship of Excellence

Organization

| SEMESTER 1 (SEPTEMBER – JANUARY) | ECTS |
|---|------|
| ELECTIVE COURSES 30 ECTS/58 ECTS | |
| Health, Safety, and Environment | 2 |
| Geological storage and environment | 4 |
| The new green gas | 2 |
| French as a foreign language | 2 |
| Well performance | 2 |
| Injection | 2 |
| Application case Reservoirs | 4 |
| Industrial code | 4 |
| Multi-scale modelisation | 4 |
| Advanced computing school | 4 |



| | |
|--|-----------|
| Application Case Production | 4 |
| Application case Geosciences | 4 |
| Well logging | 2 |
| Rocks physics for Geoenergy 1 | 2 |
| Data processing and inversion | 4 |
| Fluid & geo resources 2 | 2 |
| Fractured Reservoirs and Risks | 4 |
| Field trip Fracturation | 4 |
| Rocks physics for Geoenergy 2 | 2 |
| Geostatistics | 2 |
| SEMESTER 2 RESEARCH INTERNSHIP (JANUARY – JULY) | 30 |
| This internship is intended to offer students the opportunity to apply a scientific approach and project management methodologies for an academic or industrial research project (of duration from 5 to 6 months). | |

Note that a minimum grant of ~550€/month will be provided if the student is doing his internship in France.

Trainings

Internship : Mandatory

Internship duration : 5-6 months

Admission

Admission requirements

Academic requirements

Applicants must hold a Master of Engineering in fields such as petroleum engineering, geosciences, and/or physics.

Note that a background in chemistry is not recommended for this master's degree.

Admission requirements

- * Students must have a Master's Degree and must be ranked in the top 20%.

English language requirements



- * Minimum required score [CECRL B2](#) | 📄 level in English

How to apply

Apply here from October to March

Tuition Fees and partial exemptions

Administrative tuition in France is determined at a national level. The French Ministerial Order of April 19, 2019, amended on June 9, 2020, sets university tuition for a Master Program as follows: European nationals: **€243**, extra-European nationals: **€3770**.

For academic year 2022-2023, the Board of Directors has extended its policy of automatically providing **partial reduction of these fees at the UPPA**. As a result, extra-European nationals will be granted automatic partial reductions such that **they will be able to pay the same enrollment fees as European nationals**.

Extra fees:

In addition to academic tuition, most students must pay a student body fee (CVEC, which cost €92 in 2020-2021).

*NB: Admitted candidates in any course of study who have taken a break of more than two years from their studies will enroll via the UPPA's **Continuing Education service** (Formation Continue / FORCO). They are exempt from the CVEC, however they may be subject to a different tuition scale.*

Student capacity

10 students

And after

Further studies

Sectors

- * Petroleum companies
- * Energy companies
- * Geosciences companies
- * Environmental companies
- * Geothermal companies

Fields

- * Research
- * R&D structures

Positions

- * Ph.D. student
- * R&D Engineer

Useful info

Contacts

Head of Teaching

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Head of Teaching

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Place

📍 Pau



Campus

 Pau

Know more

For further information

 <https://master-geosciences-energy.com/>