## IN BRIEF

**Type of diploma**: Master degree  
**Ministry field(s)**: Science and Technology

## PRESENTATION

Under construction

## ORGANIZATION

- Master Petroleum Engineering Reinforcement

## ORGANIZATIONAL UNIT

Collège Sciences et Technologies pour l'Energie et l'Environnement (STEE)

## PLACES

Pau

## PERSON IN CHARGE

PROFESSEUR DES UNIVERSITES AUBOURG Charles  
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The Master of Petroleum Engineering offers a classical two-year training in French and a one year training in English for graduate students. The one-year class ‘Petroleum Engineering Reinforcement’ (~350 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 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).

The master 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 Total, Terega, Modis, etc... Pau has therefore one of the highest concentration of petroleum engineers and scientists in France.

**OBJECTIVES**

The "Petroleum Engineering Reinforcement" training program aims to complete the initial training of petroleum engineers with specific competences in geosciences, reservoir engineering and oil and gas production.
This personalized one-year training program is composed of courses selected from the three paths of the two-year Master program:

The **geosciences 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)*
*Well Analysis (well logging and seismic)*

The **reservoir path** proposes:

* To evaluate the deposits discovered
* To optimize their development as well as their production

The **production path** aims to train specialized executives in the field of oil and gas production and in the evaluation of the associated processing needs.

"First-year Master's degree Promotion"

**SKILLS**

At the end of this program, according to their optional choices, the students in the “**Petroleum Engineering Reinforcement Master**” will be able to:
Geosciences path:
* Acquire, process and interpret geological and geophysical data,

Reservoirs path:
* Contribute to the operational development and production of traditional reservoirs (simulation of reservoirs) and unconventional reservoirs (enhanced recovery),

Production path:
* Select subsurface and surface facility equipment to produce oil and gas well fluids,
* Optimize oil and gas production, in petrochemical laboratories to study and characterize the produced fluids
* Use new technologies related to production of unconventional oils.

ADDITIONAL INFORMATION
* Region Aquitaine Scholarships for non-EU students
* E2S Talents’ Academy Scholarships for all students
* EIFFEL Scholarship of Excellence
* Specific Master's scholarship

TRAINING CONTENT

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**SEMIESTER 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 a 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.

ACCESS CONDITIONS

ENGLISH LANGUAGE REQUIREMENTS

Minimum required score CECRL level in English

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.*

ADMISSION REQUIREMENTS

Students must have a Master Degree and must be ranked in the top 20%.

EXPENSES

Concerning the registration fees, the ministerial decree of 19 April 2019 sets the annual amount for non-European students enrolling in a Master's degree at €3770.

However, each French higher education institution has the possibility to partially exempt its students from these tuition fees.

For the year 2020-2021, the UPPA will apply this partial exemption to all non-EU students. Students benefiting from this partial exemption will pay an annual registration fee of 243 euros (2019_2020 price list as an indication)

FURTHER STUDY

SECTORS:
Petroleum companies
* Energy companies
* Geosciences companies
* Environmental companies
* Geothermy

FIELDS:
* Research
* R&D structures

POSITIONS:
* PhD student
* R&D Engineer

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