

Petroleum engineering and project development

Applied graduate studies



Language:
English

Duration:
16 months



The energy sector is going through a profound transformation, with the introduction of new energy re-sources, but also because of ongoing shift in the way conventional sources of energy are managed and produced. The PEPD program shapes its engineers to be actors in both fields. The program covers fundamentals in subsurface management: reservoir, drilling and production. The students are prepared to optimize the production of conventional Oil & Gas reserves, as well as to manage projects in the fields related to Energy Transition such as underground gas storage, geothermal energy, CO₂ geological sequestration.

IFP School's Master's degree/ Specialized engineering degree *Diplôme d'ingénieur spécialisé*

For those willing to play a key role in the energy transition, the program prepares you to:

- Lead Energy Transition projects such as underground gas storage (eg: methane, biogas, H₂, CO₂), geothermal energy production ;
- Manage Oil & Gas reservoirs aiming at optimized production (such as enhanced recovery, mature field) with a limited environmental impact (limited CO₂ emission, zero flaring, reduced water use, etc.);
- Maximize renewable energy use to generate the power needed to operate a field;
- Manage projects with enhanced safety considerations.

What to expect at the end of your program?

After your studies, you will be a sought-after professional of the energy sector. While keeping to answer the continuously growing demand for energy, you will contribute to the necessary transition towards new resources.

You may decide to go for either operational or more office based positions, in both cases, you will participate to highly challenging technical projects, involving practical and theoretical approaches, with an international and multidisciplinary dimension.

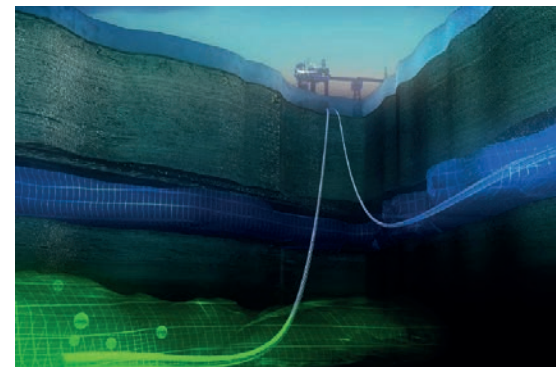
Joining the energy sector ensures you the opportunity to work with edging and innovative technologies in the fields of simulation, remote control and monitoring, but also other disciplines such as mechanics, optics, electronics, fluid behavior.

The program combines lectures from professionals, practical exercises, hands-on exposures, site visits. It provides a fit for purpose course meeting the industry's needs.

You will work on case studies based on real data, within multidisciplinary and multicultural teams, getting practical experience at working with industry specific software.

As part of the course, you will also complete an integrated production project, using industrial dataset and supervised by industry professionals.

This will shape your skills in both project management and soft skills.



CAREER OPPORTUNITIES

- Energy sector companies
- Service and equipment companies
- Drilling contractors
- Underground storage operators
- Geothermal energy companies
- Consulting companies
- Public services (water cycle management, waste management, etc.)



Find out more: www.ifp-school.com





HIGHLIGHTS

- Unique training program that covers three core specializations: reservoir, drilling and production
- Highly practical instruction: large majority of lecturers work in the industry, case studies based on real data sets, workshops
- Field courses, site visits, industry recognized certification (IWCF)
- Integrated production project
- International intake
- Fully funded studies opportunities

Financing / main sponsors

Most **students** in this program are **sponsored by companies** that finance their **living expenses** during the academic period and **fully contribute to their tuition fees**.

There are different sponsoring formats: sponsorships, apprenticeships or as seconded professionals.

Among these companies, the following have been IFP School partners in recent years (non-exhaustive list): BNP Paribas, BP, Cepsa, Elengy, Engie, Equinor, Flexi France, Geostock, IPC, IFP Energies nouvelles, Maurel & Prom, Perenco, Saipem, SLB, SMP, Storengy, Vallourec, Technip Energies, TechnipFMC, TotalEnergies, Trident Energy, etc.

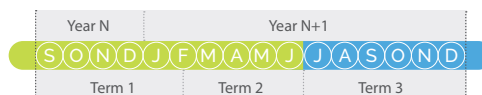
Program schedule

The two examples of schedules shown below correspond to the most frequently encountered cases for students in the program:

a 16-month continuous program for students with a 4- or 5-year engineering degree, and an alternating school/company 16-month program.

16 months

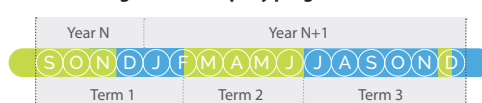
Continuous program



● IFP School
● Company

16 months

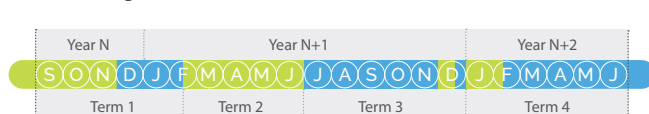
Alternating school/company program



Another possible case for the students in their penultimate year of a European school or university having signed a double-degree with IFP School:

22 months

Double-degree



Program content

Reservoir

- Fundamentals of reservoir engineering
- Static and dynamic reservoir characterization
- Georesource production mechanisms
- Reservoir modeling and simulation

Production

- Development of offshore fields
- Effluent treatment
- Process engineering and energy efficiency
- The gas value chain
- Integrated production projects

Drilling-completion

- Well engineering
- Conduct of drilling operations
- Well productivity
- Drilling-completion project

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