



PETROLEUM ENGINEERING AND PROJECT DEVELOPMENT

APPLIED GRADUATE STUDIES

Language: **English**

Duration: **16 months**

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



Did you know that the Oil & Gas industry is experiencing a profound transformation? It must face the challenges of energy transition, optimizing the production of Oil & Gas fields while limiting CO₂ emissions related to their operation and ensuring maximum safety. When you realize that on average, recovery rates level off at 35%, and that 1% more would cover 2 years of worldwide consumption, every innovation is worth considering! Our Petroleum Engineering and Project Development program provides you with training based on actual, industry-specific case studies, so you'll be prepared to meet its challenges.

HIGHLIGHTS

- Training 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-world projects)
- Field trips and site visits
- Integrated production project

The energy transition has triggered an unprecedented transformation within the Oil & Gas sector, which is now faced with significant societal and environmental challenges. Demand for natural gas continues to rise within the energy mix, while demand for oil remains steady, supported by the transport sector. Control and optimization of Oil & Gas production has gained critical importance, in an effort to limit CO₂ emissions and ensure safety.

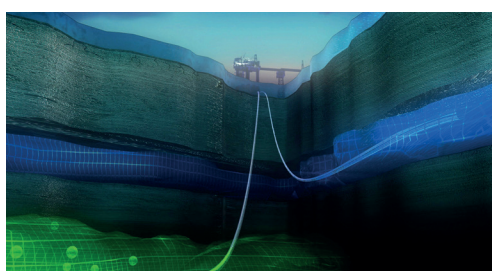
To meet steady demand and address the decline of fields already in production, tomorrow's professionals – reservoir engineers, drillers and production engineers – must devise solutions to optimize production, to increase Oil & Gas recovery rates, specifically of mature fields, to access and operate new resources and to manage CO₂ emissions. You'll play a key role in this transition, making innovation your mission and operating on the global stage, while developing sustainable solutions that meet environmental, energy efficiency and safety requirements.

At IFP School, we train the most sought-after young talents in the industry. The Petroleum Engineering and Project Development program offers training in three core specializations – reservoir, drilling and production – and provides a comprehensive overview of georesource development, with a focus on Oil & Gas fields, integrating these areas with the goal of optimizing production. To achieve this, as part of the course you'll work as a team on a major integrated production project, based on industrial data, either to develop a new field or to optimize production of a mature field. At the same time, you'll make maximum use of renewable energy to generate the power needed to operate the field.

We'll give you tools to achieve your ambition: case studies based on real-world data, the chance to work on projects in multicultural teams and supervised by industry professionals, practical experience working with industry-specific software, site visits in producing countries and an array of other opportunities. You'll naturally take your place among energy companies and Oil & Gas companies, service and engineering companies, consulting firms, as well as in the field of geothermal energy and other new energy resources that use the same skills developed at IFP School. You'll develop your skills in an international environment, within multidisciplinary and culturally diverse teams that demand strong technical and geographic mobility.

CAREER OPPORTUNITIES

- Oil & Gas companies: IOC, NOC
- Oil & Gas service and equipment companies
- Drilling contractors
- Underground storage operators
- Geothermal energy companies
- Consulting companies
- Public services (water cycle management, waste management, etc.)



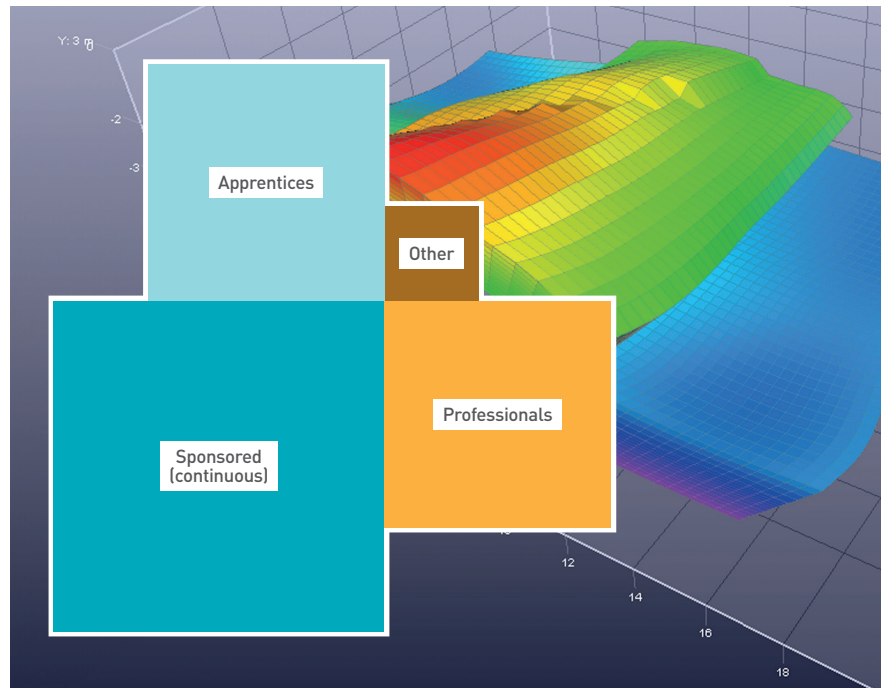
Find out more: www.ifp-school.com



TYPICAL CLASS PROFILE/ MAIN SPONSORS

Students in this program are almost all sponsored by companies (through sponsorships, apprenticeships or as seconded professionals) that finance their living expenses during the academic period and contribute towards their tuition.

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, IPC, IFPEN, Maurel & Prom, Perenco, Saipem, Schlumberger, Shell, SMP, Storengy, Vallourec, TechnipFMC, Total, Trident Energy.



PROGRAM CONTENT

> The program covers 3 main topics

Reservoir

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

Drilling-completion

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

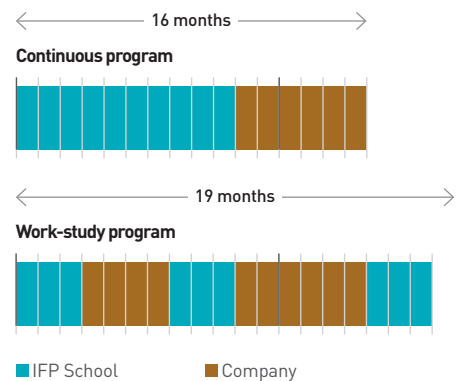
Production

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

In addition, HSE issues – particularly concerning safety – are addressed in all courses.

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; a 19-month work-study program for students with a 5-year engineering degree.



There are other possible cases, such as:

- a 10-month continuous program for a student with a 5-year engineering degree who has already had placements in a company for at least 4 months, approved by IFP School at the time of admission;
- a 22-month alternating school/company program for an engineering student in the penultimate year of a major European school or university having signed a double-degree agreement with IFP School.

