

RESERVOIR GEOSCIENCE AND ENGINEERING

APPLIED GRADUATE STUDIES

Language: **English**

Duration: **16 months**

Degree: **IFP School's MSc degree and possibly the partner institution's degree (for double-degree track)**



Did you know that understanding the architecture of reservoirs and rock-fluid interactions are key factors for optimizing production? The complementary skills of geoscientists and engineers are essential to its success. Through our Reservoir Geoscience and Engineering program, you'll master the methods and tools used to optimize more sustainable production of Oil & Gas fields, develop storage capacity for gas and CO₂, and even produce new geothermal resources. Following your case-based training, you'll be recruited for your operational capabilities and your ability to lead projects in an international and multicultural environment. Accept the challenge!

PARTNER INSTITUTIONS

- Texas A&M University (USA)
- Gubkin Russian State University of Oil & Gas (Russia)
- Tyumen State Oil & Gas University (Russia)
- Instituto Tecnológico de Buenos Aires (Argentina)
- Bandung Institute of Technology (Indonesia)
- Kazan Federal University (Russia)

The world demand for energy is constantly growing. The Oil & Gas industry is facing a key challenge: optimize Oil & Gas field production, both those already under production and those yet to be discovered.

Two professions are key players to improve the production of hydrocarbon reservoirs: reservoir geoscientist and reservoir engineer. They require multiple skills and are complementary. A reservoir geoscientist describes the architecture of the reservoirs and calculates the volume of trapped hydrocarbons. A reservoir engineer describes the fluids and proposes an optimum and sustainable development strategy. Moreover they will be able to innovate and work on multicultural and cross-cutting teams.

By choosing the IFP School Reservoir Geoscience and Engineering program, you can be a part of a great adventure. In an exceptional academic setting, you will follow a common core program

and optional modules that allows you to strengthen your specialization in geoscience or reservoir engineering. You can also opt for a partnership program with a foreign university (TAMU – USA, Gubkin – Russia, Tyumen – Russia, ITBA – Argentina, ITB – Indonesia or KFU – Russia) and graduate with a double degree.

The atmosphere at IFP School is cosmopolitan. In the Reservoir Geoscience and Engineering program, roughly 80% of the students are international and come from every continent. We firmly believe that this cultural mix stimulates the energies of both students and faculty. Our classes are taught in English and many of your projects will be conducted on multicultural teams.

The Reservoir Geoscience and Engineering program prepares you to deal with real situations. You will conduct numerous case studies based on real data from the field. You will deal with geological objects through practical field trips. You will also use industry-specific current software.

Students choosing the professions of reservoir geoscientist or reservoir engineer will ultimately work in international environments, that require high technical and geographic mobility. You can take advantage of the large variety of career opportunities with Oil & Gas operators, service and engineering companies, geothermal energy industry, etc.

CAREER OPPORTUNITIES

- Oil & Gas companies (IOC and NOC)
- Oil & Gas equipment and service companies
- Geothermal energy industry
- Energy consulting companies
- International institutions



Find out more: www.ifp-school.com



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TYPICAL CLASS PROFILE/ MAIN SPONSORS

Most of the students are supported by companies (through sponsorships or study leave) 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):

BP, Cepsa, Ecopetrol, Engie, ExxonMobil, Gazpromneft, Lukoil, Perenco, Petrobras, PTT, Saudi Aramco, Schlumberger, Statoil, Total.



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PROGRAM CONTENT

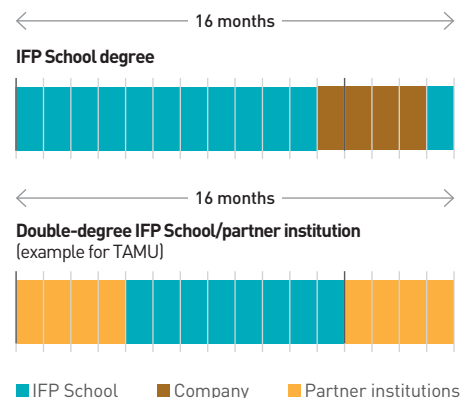
	IFP School (single-degree track)	IFP School/TAMU (double-degree track)
Fall term	<i>At IFP School</i> <ul style="list-style-type: none"> • Geoscience fundamentals I • Reservoir engineering fundamentals I • Geoscience fundamentals II • Reservoir engineering fundamentals II 	<i>At TAMU</i> <ul style="list-style-type: none"> • Fluid flow in petroleum reservoirs • Petroleum reservoir description • Production engineering • Unconventional Oil & Gas
Spring and Summer Terms	<i>At IFP School</i> <ul style="list-style-type: none"> • Production mechanisms • Well logging • Well testing and interpretation • Well performance • Reservoir characterization and modeling • Reservoir simulation • Reservoir geology • Advanced reservoir simulation • Advanced RCM • EOR • Unconventional HC & CO₂ management/ Fractured reservoirs 	
Fall term	Internship in a company	<i>At TAMU</i> <ul style="list-style-type: none"> • 4 courses
Optional spring term	---	<i>At TAMU (optional)</i> Additional courses and research thesis

This program is indicative only. Other courses may be selected by the students according to their initial education and to the requirements of the thesis.

Moreover, a wide variety of courses are offered by the other partner institutions (in Argentina, Indonesia and Russia) for the first fall term and the second fall term.

PROGRAM SCHEDULE

The two examples of schedules shown below correspond to the most frequently encountered cases for students in this program: 16-month program for students with a 4- or 5-year engineering degree, either entirely at IFP School, with an induction period in a company, or with two terms on the partner's campus (TAMU, Gubkin, Tyumen, ITBA, ITB, Kazan) to obtain a double degree.



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