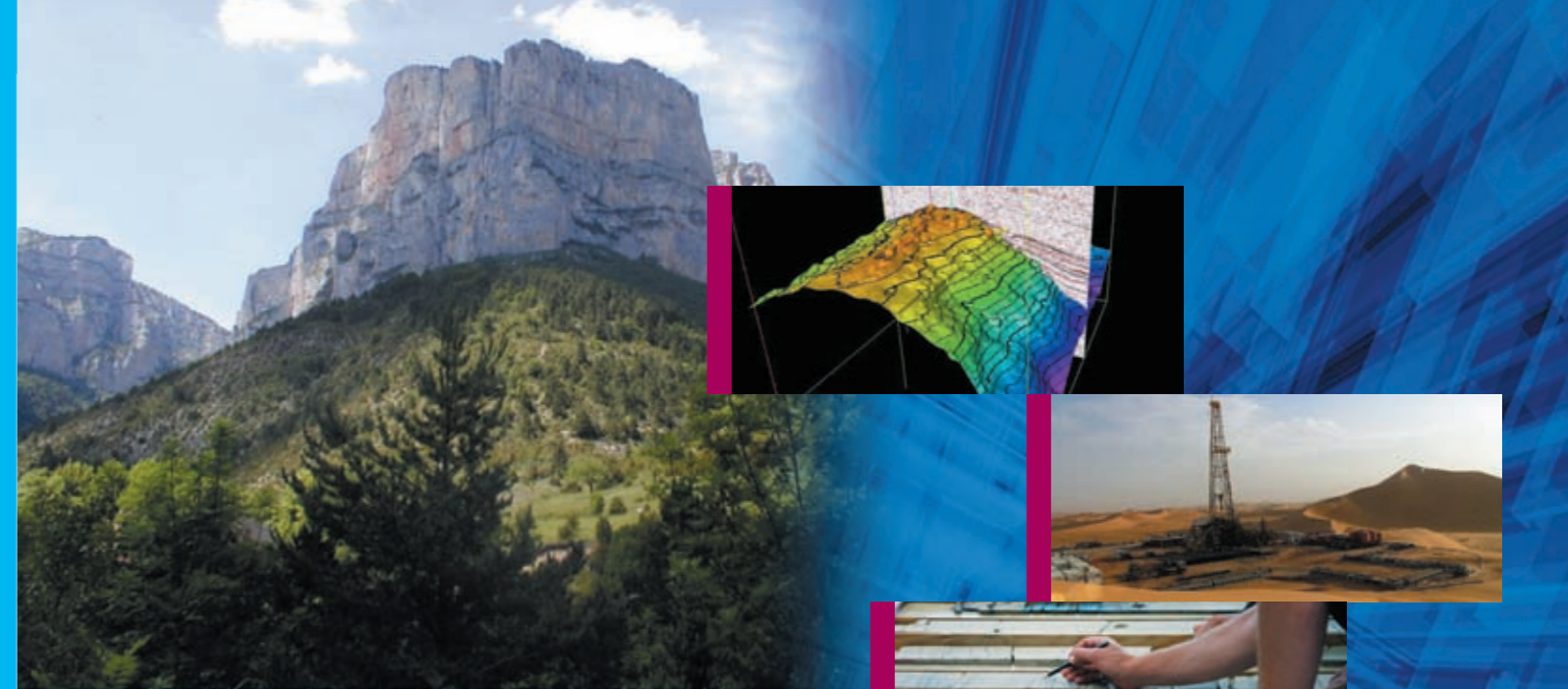


# IFP Training

IFP Training is a subsidiary of the French Petroleum Institute (IFP) and since 1975 has been providing skill development & training for all professionals in the oil, gas, petrochemical, chemical and automotive industries, from top managers to site operators. With 80 full-time instructors and a network of 500 consultants, IFP Training offers services in three main areas, in France but also overseas:



- Training courses for professionals, from a few-day short courses to several-month integrated courses with both lectures and hands-on activities. Every year IFP Training delivers over 1,200 courses for about 14,000 participants from some 80 countries.
- Master Degree or Graduate Diploma programs outside France in partnership with the IFP School.
- Training engineering and consulting for Ministries of Energy, and international/national oil & gas companies, or international institutions, thanks to a multidisciplinary team combining technical experts with professionals in education and instructional design.



## Petroleum Exploration

*A set of industry-focused and hands-on training modules.*

> For any additional information, please contact us:

**IFP Training**

232, avenue Napoléon Bonaparte  
92852 Rueil-Malmaison Cedex France  
Phone: +33 1 47 52 53 60  
Fax: +33 1 47 52 74 27  
E-mail: [gre.rueil@ifptraining.com](mailto:gre.rueil@ifptraining.com)

[www.ifptraining.com](http://www.ifptraining.com)

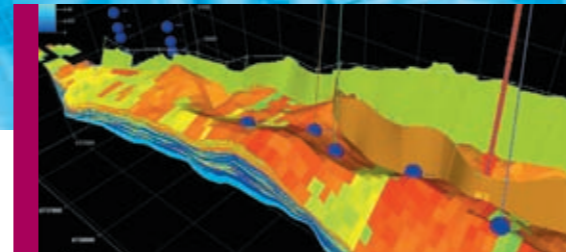
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**IFP Training**

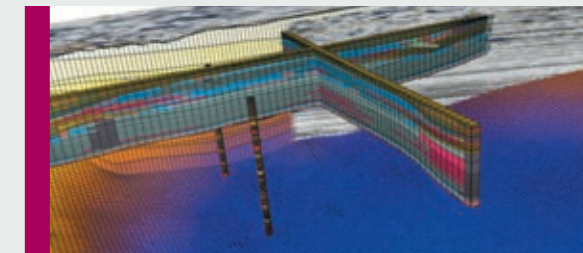
# A 3-month training program in the Oil & Gas Exploration

To review all the steps from seismic data and well log interpretation to basin modeling, in order to assess plays and evaluate prospects.

The **Petroleum Exploration** training course in geosciences is designed to result in effective **multidisciplinary** teams, at all the stages of exploration, and leads to a better understanding of the role and requirements of the various specialists involved in the exploration process.



Petroleum Exploration



## > Objectives

- To understand the fundamentals of petroleum exploration, from basin analysis to prospect evaluation.
- To review the key concepts and methods required for basin assessment.
- Specific emphasis will be given to promoting integrated studies, to develop a common language and to understand the relevant technical concepts and related applications, thereby **enhancing team productivity**.
- The program is designed with a clear industry focus. The skills acquired through this program will enable trainees to **actively contribute to petroleum exploration studies within multidisciplinary teams** ■

## > Who Should Attend?

This course will be of significant interest for geologists and geophysicists, both junior and professional geoscientists who wish to either acquire or broaden their technical experience in all exploration domains.

This course has a strong practical bias and is ideally suited for those who wish to acquire and broaden their technical expertise ■

## > Course Schedule

### 12 weeks:

- 7-week review of **standard exploration tools** (from seismic data acquisition, processing & interpretation, to well data analysis) including two field trips (1 week each):
  - > 1<sup>st</sup> field trip: introduction to petroleum systems on outcrop examples
  - > 2<sup>nd</sup> field trip: presentation of seismic and borehole data analogues
- 4-week focus on **basin assessment and modeling** (BAM module)
- 1-week dedicated to **play assessment and prospect evaluation** ■

## > Exploration tools:

### 7 weeks (Modules 1 to 6)

A global overview of seismic data acquisition and processing in one week, followed by two weeks of **hands-on practice on a case study in seismic interpretation**, on a workstation, from well tying to horizon picking and time-to-depth conversion.

A complementary exploration tool with remote sensing acquisition and interpretation.

An introduction to petroleum well data interpretation:

- To identify and analyze main measurements carried out in a well, while and after drilling.
- To locate and evaluate reservoir potential.
- To perform a geological interpretation with well log analysis, including borehole imaging and core matching.

Two field trips:

- > 1-week **field trip** to introduce petroleum systems, in southeast of France,
- > 1-week **field trip** in carbonate environments for seismic and well log analogues.

## > Basin Assessment and Modeling (BAM)

### 4 weeks (Modules 7 to 10)

- To identify the **structural style** of a petroleum area and discuss tectonic events versus **petroleum system timing**.
- To analyze the main **depositional environments** and the characteristics in **seismic stratigraphy**, in order to predict reservoir distribution and geometry with the help of sequences stratigraphy.
- To acquire a broad overview of the analytical and **modeling methods** applied in the oil & gas industry.
- To interpret **geochemical data** for a critical view and to evaluate the potential and maturity of a source rock.
- To understand the principle of **basin modeling**, to evaluate model critical parameters, thermal history, pressure and overpressure, maturation and expulsion, hydrocarbon migration and analyze related **uncertainties**.

## > Play Assessment & Prospect Evaluation: 1 week (Module 11)

- To analyze the potential of a basin through **play assessment, risk analysis** and probability of success.
- To evaluate a prospect with regional maps, cross-correlations, OOIP calculation and a prospect "ID sheet".