

## Energy and Products



Did you know that compatibility of an engine/fuel pairing is **a critical challenge in the development** of more [sustainable transport](#)? Energy efficiency of engines, hybridization, alternative fuel development: for each of these challenges, the best technological options must be developed to ensure compliance with increasingly **demanding environmental standards** and to meet society's expectations. Through our Energy and Products program, [you'll play a key role in the energy transition](#) in the field of transport and energy converters for power generation. Support these transforming industries through **this multifaceted, operations-based graduate program**.

### Typical class profile

Students in this program are almost all supported by companies through an apprenticeship contract or a scholarship to help finance their living expenses.

### Main partners

Among these companies, the following have been IFP School partners in recent years (non-exhaustive list):

- Afton Chemical
- Air Liquide

- BP
- Chevron Oronite
- EDF
- ExxonMobil
- Fuchs Lubrifiant
- Renault group
- Marine nationale
- Nyco
- Raffinerie du Midi
- SEO
- Shell
- Sogefi
- Stellantis
- TotalEnergies
- Volvo Powertrain...

Les points clés du cursus

Alternating school / company

Diversity of professions

Applied teaching

Les débouchés pour le programme

70%	15%	15%
Energy: lubricants, (bio)fuels, gas, electricity	Manufacturers and equipment suppliers	Other energy sectors, consultants and miscellaneous

Programme & Calendrier

## Program content

The lectures are given in French

### Fuels and energy products

- Refining processes
- Conventional and alternative fuels
- Fuel logistics
- Gas, electricity production, environment

### Oils and other non-energy products

- Lubrication
- Automotive lubricants
- Industrial lubricants

### Engines for ground transport

- Energy conversion and engine testing
- Powertrain technology
- Combustion and reduction of pollutant emissions

### Cross-disciplinary topics

- Trading, marketing and product markets
- Methodological tools
- Aeronautical and non-automotive application

### Transverse skills and professional attitudes

- Experience Sharing Module

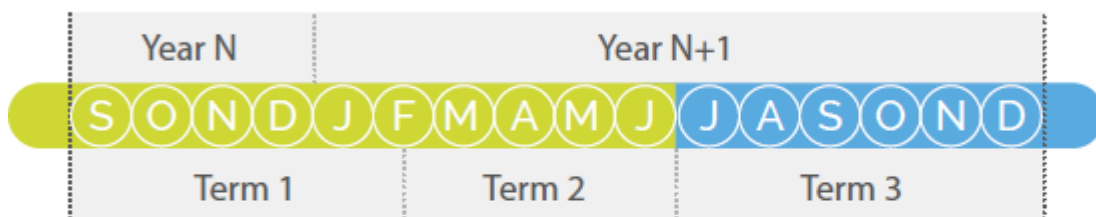
## Schedule

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

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

### 16 months

#### Continuous program

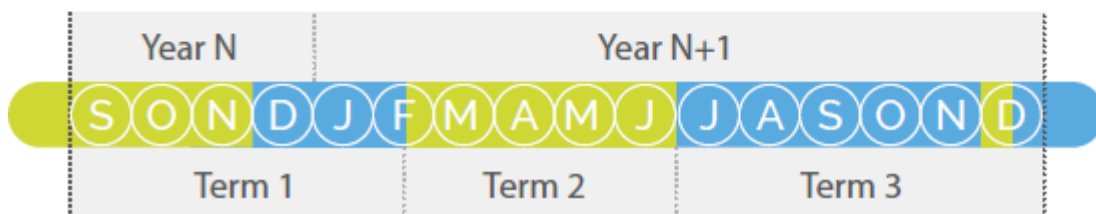


● IFP School

● Company

### 16 months

#### Alternating school/company program

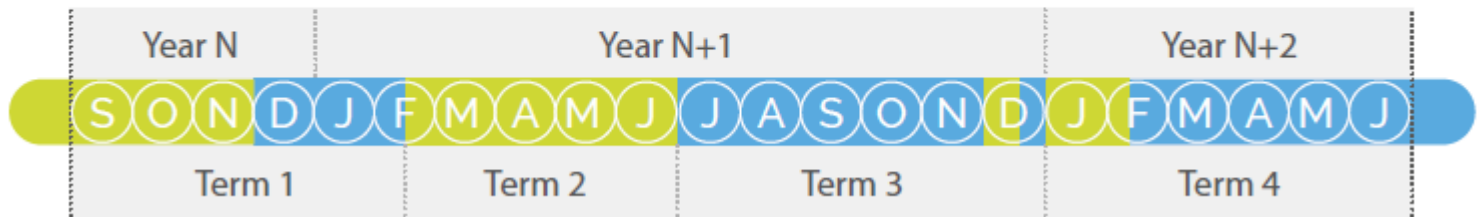


Other situations may arise, such as:

- 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.

**22 months**

**Double-degree**



Opportunités de carrières

## Businesses

- Energy sector
- Additive and lubricant manufacturers
- Transport and equipment manufacturer sectors
- Professional committees and biofuel producers

## Jobs

### In the energy industry

- Development of products (fuels, lubricants, additives), in the domain of the energy transition, in oil companies, additive suppliers and lubrication firms. Purely technological profession.
- Technical support to marketing departments and sales forces: typical technical and commercial roles of a project manager. Profession with many facets, very open (at the crossroads of development, production and marketing processes).
- Energy logistics: organizing the distribution of products, from the refinery to the car's fuel tank. With oil companies and specialized businesses. Profession with many facets, very open. The other energetic products/carriers ((bio)gas, hydrogen, electricity...) are also concerned.
- Trading of products.
- Design engineer on electricity generation and storage systems.

### In the transportation industry (automotive, airline, maritime...)

- Specialist product engineers in technical departments, working on engine development: (bio)fuels, lubricants; often with manufacturers, sometimes with equipment suppliers. Purely technological profession.

- Pollution abatement equipment development engineer, batteries, fuel cells (chemical engineers very welcome). Purely technological profession.

## **Discover the lubricants and energy sector with our graduate Clara Fabre**

Clara Fabre, a graduate of the Energy and Products program (class of 2011) and Technical Director Lubricants and Energy at IMCD Group, shares her career path.