



ENERGY AND PRODUCTS

APPLIED GRADUATE STUDIES

Embrace the cross-functional world of oil products

Language: French
Duration: 16 months
Degree: Engineering degree / Master's degree
"Continuous" or "alternating school / company" program

Sustainable development has opened up a new era. The entire fuel production sector has rallied to support the cause, recognizing that the need to diversify is crucial to the future of transport and to meet the growing demand for mobility: alternative fuels derived from inherently renewable agricultural resources, fuels produced by the synthesis of gas, coal and biomass.

The energy efficiency of every type of energy converter (engines, boilers, ovens, etc.) needs to be improved in order to combat the build-up of greenhouse gases. This quest for ever greater efficiency puts additional stresses on the energy product / energy converter pairing.

Lubricants need to be developed in compliance with environmental as well as energy efficiency requirements. The sustainability factor is thus a fully integral component of the training program dedicated to all these technologies.

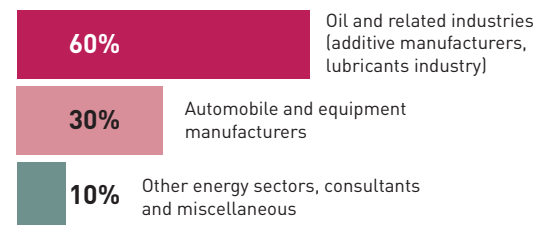
In addition, the safety of users, manufacturers and intermediary players needs to be guaranteed, implying more stringent specifications for energy products and their substitutes. Lifecycle analysis, environmental compatibility, reduction of toxicity to humans and waste recycling are all important issues demanding a high level of technological expertise, from well to wheel.

An Energy and Products engineer is driven by an awareness of the bigger picture as a result of his or her knowledge in a broad range of scientific fields, from mechanics to organic chemistry, fluid mechanics, tribology, rheology and thermodynamics. Like any 21st century engineer, he or she is therefore someone of many talents, not just one. The training program covers all these different fields.

The inclusion of a training module dedicated to marketing gives students considering a career in technical sales the opportunity to break into niche markets where the added technical value of a product is crucial to the supplier / customer relationship.

The IFP School Energy and Products program is a perfect environment for exchange between young

JOB OPPORTUNITIES



students with a broad variety of experience and scientific backgrounds.

The Energy and Products program is accessible to a broad public. The opportunities are many and varied, in the energy sector as well as the automobile industry.

This program offers true assets to its students. The rapid integration of students into industry, the loyalty of major customers when recruiting graduates of this program – which is as old as the school itself and which has provided industry with a thousand engineers in the last 50 years – form the most solid foundations of this original program.

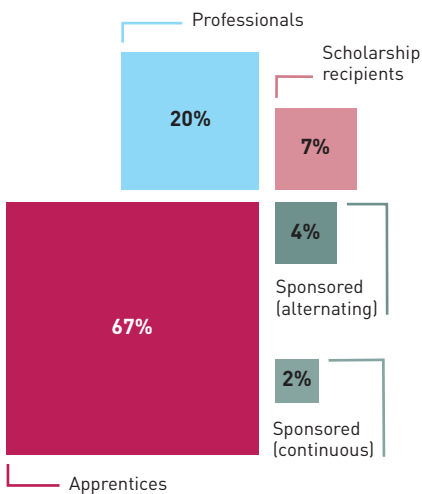
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TYPICAL CLASS PROFILE / MAIN SPONSORS

Students in this program (around 25) are almost all sponsored by companies (through sponsorships, apprenticeships, or study leave) that finance their living expenses during the academic period and contribute towards their tuition.

Among these companies, the following were IFP School partners in recent years (non-exhaustive list): BP, Chevron Oronite, Exxonmobil, IFP, PSA Peugeot Citroën, Renault, Shell, Total, etc.



PROGRAM CONTENTS

This program is divided into

4 major themes:

Fuels

- Overview, refining
- Fuels
- Oil product logistics
- Combustibles

Lubricants

- Lubricants, overview
- Automotive lubricants
- Industrial lubricants

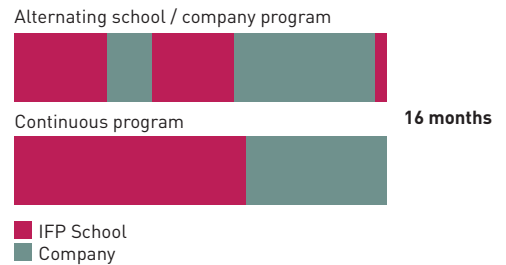
Machines

- Energetics and engines
- Engine technology
- Combustion and pollution control

Marketing

PROGRAM SCHEDULE

The two examples of schedules shown below correspond to the most frequently encountered cases for students in this program: 16-month continuous program for students with a 4- or 5-year engineering degree; alternating school / company 16-month program for students with a 5-year engineering degree.



There are other possible cases as well:

- 10-month continuous program for students with a 5-year engineering degree who have already done work in a company for at least 4 months that is validated by the IFP School at admission;
- 22-month alternating school / company program for students in their second to last year of a major European school or university having signed an agreement with IFP School.