PROGRAM

1st semester

- 1/ Energy tools for engineers 50 hrs
- 2/ Tools for Chemical Processes in Energy 50 hrs
- 3/ Energy modeling tools 50 hrs
- 4/ Research and Development Project 150 hrs 2nd semester
- 5/ Research and Development Project 50 hrs

2nd semester

- 1/ Energy tools for engineers 50 hrs
- 2/ Sustainable development 50 hrs
- 3/ Project in energy and sustainable development 50 hrs
- 4/ Humanities, French, English 50 hrs
- 5/ 4-month internship in a research laboratory (academic or industrial)

3rd semester

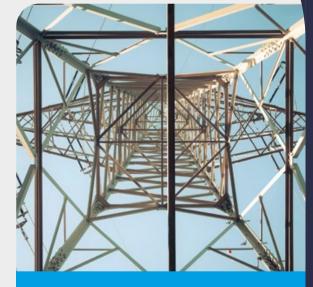
- 1/ Energy engineering 40 hrs
- 2/ Decarbonized energy 40 hrs
- 3/ Energy efficiency 40 hrs
- 4/ Energy storage and supply 40 hrs
- 5/ Energy management 40 hrs
- 6/ Sustainable Mobility 60 hrs
- 7/ Research and innovation project 100 hrs
- 8/ Humanities, French, English 40 hrs

4th semester

Final internship (5-6 months)

ADMISSION CRITERIA

- Applicants should already have passed/validated a bachelor's degree in Physics, Physical Chemistry, Materials Engineering, Chemical Engineering, or Biochemical Engineering.
- The selection process will be based on the examination of the application file (cv, transcript of the BEng, English language certification). The candidate may be invited to an interview.



3 school projects and 2 internships

- > 4-month internship between the 2nd and 3rd semesters
- > final internship (5-6 months)



POLYTECH Clermont 2 Avenue Blaise Pascal - 63178 Aubière

www.polytech.univ-bpclermont.fr

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MASTER'S DEGREE IN ENERGY FOR SUSTAINABLE ENGINEERING

Graduate Track For Intelligent & Innovative Mobility

POLYTECH CLERMONT







Institute of Technology

3 graduate schools of Engineering in Clermont-Ferrand

Computer science • Biological Engineering • Mechanical Engineering • Civil Engineering • Electrical Engineering • Mathematical Engineering & Data Science • Engineering Physics • Production Systems Engineering • Chemistry & Chemical Engineering

3 engineering graduate schools

Clermont Auvergne INP - ISIMA Clermont Auvergne INP - SIGMA Clermont Clermont Auvergne INP - Polytech Clermont

Member of the INP Group +35 public engineering schools in France

engineering prepatory classes (undergraduate level) a Prépa des INP (Groupe INP) CPI (Fédération Gay-Lussac)

professional training denartment

PeiP (réseau Polytech)

Prép' Isima

2 500 students

350 academic & administrative

Main research centers affiliated to the French National Research Centre (CNRS)

189 international cooperation agreements



CLERMONT **AUVERGNE** POLYTECH CLERMONT

Polytech Clermont is a public Graduate School of Engineering of the French Ministry of Higher Education, Research, and Innovation. Polytech Clermont is a part of Clermont Auvergne INP and is a member of the Polytech Group which regroups 15 Graduate Engineering Schools in France, that train more than 10,000 engineers a year.

Polytech Clermont benefits from the active international research and study environment of Clermont Auvergne University, its staff is associated to 10 of its research laboratories. Polytech Clermont offers graduate students six programs: Biological Engineering, Civil Engineering, Electrical Engineering, Mathematical Engineering and Data Science, Engineering Physics, Production System Engineering.

Currently, around 1,200 students are enrolled at Polytech Clermont. Polytech Clermont-Ferrand has trained nearly 7,000 engineers since its inception in 1969.



MASTER'S DEGREE IN ENERGY FOR SUSTAINABLE ENGINEERING

The mobility of people and objects consumes a large quantity of natural resources, in terms of both materials and energy. Energy efficiency, energy sobriety, and decarbonized energies are the keys for a sustainable future.



In short:

> Course duration:

3 semesters at POLYTECH Clermont

+ 1 semester of internship

Language: **English + additional French language** courses

- > Starting in: September
- > ECTS: 60+60

This master's degree offers students multidisciplinary training in the field of engineering applied to energy production, storage, supply, and management, including mainly:

- renewable energy (bioenergy, solar from materials to panels)
- hydrogen production and power-to-gas
- sustainable mobility based on hydrogen, power, or liquid biofuels
- energy efficiency for industrial and service sectors

Take advantage of specialized training and research bench-scale to pilot-scale facilities of our chemical and biochemical engineering laboratory, and of the engineering physics workshops (CAD, soldering, 3D printing, physicochemical properties) of POLYTECH Clermont for project-based learning.

Industrial Partners:

Institut Pascal (chemical engineering, bioenergy, solar energy, physics), Excellence Laboratory on sustainable mobility (LabEx IMobS3) and CIR ITPS (Innovative Systems for Transportation and Production), Michelin, Bio-Valo.

Hosting Graduate School:

