

Document for host laboratories

#### **ENS Paris-Saclay**, is made up of:

- 1,702 students, including 300 international students.
- 11 research and teaching departments
- 12 research laboratories
- 3 multidisciplinary research institutions
- 4th in France for the staff-student ratio (QS 2019)
- In the Top 10 best French schools (QS 2021)

Université Paris-Saclay, is made up of:

- -48,000 students
- -9,000 professors
- -275 laboratories
- -Researchers providing 13% of France's research capacity.

ARWU 2021 rankings:

- -Ranked 13th in the world
- 1<sup>st</sup> in the world in mathematics
- 9<sup>th</sup> in the world and 1st in Europe in physics.
- -Ranked in the Top 50 in 11 disciplines.

Ecole normale supérieure Paris-Saclay (ENS Paris-Saclay) is an institution of excellence which sets out to train professors and researchers and, more broadly, professionals from the public sphere and the private sector, involved in professions which require very strong scientific expertise.

ENS Paris-Saclay is a training and research centre with an international and multidisciplinary outlook. It offers students an early immersive contact with research as part of their education in basic sciences, humanities and social sciences, and engineering sciences.

The ENS Paris-Saclay degree takes a large number of normaliens [ENS students] to the level of a doctoral degree (70%).

ENS Paris-Saclay fulfils its mission by relying on a highly selective recruitment process for normalien élèves [trainee civil servants] and normalien étudiants [students]. It offers these élèves and étudiants personalised training, with priority given to interdisciplinarity.

Normaliens who have registered for the institution's degree are admitted through two selective entry routes:

- through a competitive examination; the winners are then referred to as normalien élèves and are paid by the French state during their 4-year course;
- based on an application dossier; in this case, the winners are referred to as normalien étudiants.

ENS Paris-Saclay is an institution of Université Paris-Saclay (UPSaclay) and, in this capacity, coordinates the Graduate School of Research and Higher Education. Like in 2020, the University of Paris-Saclay is ranked 1st in mathematics and 9th in physics (1st in Europe), according to the ARWU 2021 ranking. It also demonstrates how excellent its research is by ranking in the World Top 50 in eleven disciplines including automation and monitoring, mechanical engineering and chemistry.



The "Bienvenue en France" label certification highlights institutions which develop high-quality specific services for international students, such as information, support services, teaching support, campus life and post-graduation follow-up. ENS Paris-Saclay was awarded "Bienvenue en France" label level 2 certification on 13 February 2020, which it has held for the last 4 years.



BONNE PRATIQUE TERMS HUS+ Rewards projects that display a high level of quality around their implementation, deliverables, and impacts.

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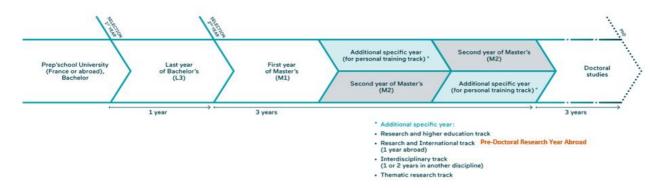


# THE PRE-DOCTORAL RESEARCH YEAR ABROAD (ANNEE DE RECHERCHE PREDOCTORALE A L'ÉTRANGER - ARPE)

The ENS Paris-Saclay degree takes 4 years, following 2 years of preparatory classes.

Normaliens then enter the 1st year called the pre-master year (or L3), followed by a  $2^{nd}$  year, Master 1. The  $3^{rd}$  year is an additional specific year (for personal training track), which includes the Pre-Doctoral Research Year Abroad. The  $4^{th}$  year of the ENS Paris-Saclay degree corresponds to the  $2^{nd}$  year of Master's.

## Study scheme at ENS Paris-Saclay



*The Pre-Doctoral Research Year Abroad (ARPE)* is an original part of the ENS Paris-Saclay degree course. It is a year of specific training within the "*International Research*" programme. *Normaliens* must complete this year in order to obtain their degree. As part of the Pre-Doctoral Research Year Abroad, *normaliens* are introduced to a research system and a foreign culture, and therefore learn:

- how to be self-reliant when conducting research;
- research expertise on a subject and the associated methodological tools.

In order to be self-reliant, *normaliens* need to be the main driving forces behind their projects.

Since the *ARPE* was launched in 2013, nearly **500** *normaliens* have undertaken this programme in the most prestigious universities, departments or scientific laboratories in the world, such as Harvard University, University of Montréal, University of Tokyo, University of Kyoto, Université Libre de Bruxelles, HEC Lausanne and Oxford University.

### ARPE destinations from 2013 up to now



#### **HOW THE ARPE WORKS**

The *ARPE* takes place **between the 1**<sup>st</sup> **and the 2**<sup>nd</sup> **year of a research-oriented Master (M2R)**, i.e. during the 3<sup>rd</sup> year of the degree and, in exceptional circumstances, during the 4<sup>th</sup> year.

- *Length*: It is a 9-month training year as part of the ENS degree. If the *normalien* chooses to do their project in two different laboratories, the *ARPE* length is extended to 10 months.
- -*Project*: The idea is to undertake a research project in a foreign research laboratory; *ARPE* projects are prepared with the ENS teaching team during the year before they are transferred abroad.
- **-Methods:** The **normalien** is supervised by a researcher in the host laboratory and by an *ARPE* supervisor at ENS.
- -*Validation*: Normaliens who go on an *ARPE* year will have 60 ECTS credits validated at the end of this training course.

University	A 5-stage timeline	
year		
N-1	Period 1:	The period where the <i>normalien</i> , working with the host
	September to March	laboratory and the Teaching and Research Department at the School, puts together the project. The deadline for the putting together the project is in the spring of year N-1.
	Putting together the project	
	Period 2: March to June	The project submitted by the <i>normalien</i> is assessed by the Teaching Department, which will result in it being authorised no
	Assessing the project	later than May of year N-1.  Milestones are set by the Teaching and Research
		department each year and are communicated to <i>normaliens</i> .
N	Period 3: September	Preparation work done at ENS Paris-Saclay for the research activity, supervised by their designated tutor at the School and
	Preparing to transfer abroad	finalisation of paperwork for the transfer.
	Period 4:	Research work in the foreign laboratory, supervised on site by
	October to June	the tutor at the host laboratory and remotely by the <i>ARPE</i> supervisor at the School.
	Undertaking the project	Halfway through the project, the student sends a written progress report in English.
N+1	Period 5: September	Final assessment at ENS Paris-Saclay with validation of 60 ECTS
	_	(such as a defence, feedback on the research work, preparing a
	Assessing the work	poster in English and workshops)
	complete	The assessment methods are set by the Teaching and Research
		department each year and are communicated to <i>normaliens</i> .

#### PRACTICAL INFORMATION

### **ARPE** academic supervisors:

**Electronic, Electrical Engineering and** 

**Automation:** Eric Vourch eric.vourch@ens-paris-saclay.fr

**Mechanical engineering:** Bastien Durand bastien.durand@ens-paris.saclay.fr

Civil and environmental engineering:

Cédric Giry

cedric.giry@ens-paris-saclay.fr

**Chemistry:** Keitaro Nakatani

keitaro.nakatani@ens-paris-saclay.fr

**Biology:** Jean-Marc Ricort

jean-marc.ricort@ens-paris-saclay.fr

Physics: François Treussart

françois.treussart@ens-paris-saclay.fr

**Mathematics:** Gabriele Facciolo gabriele.facciolo@ens-paris-saclay.fr

Computer Science: Stéphane Le Roux

leroux@lsv.fr

**Social Sciences:** Philippe Fontaine <a href="mailto:philippe.fontaine@ens-paris-saclay.fr">philippe.fontaine@ens-paris-saclay.fr</a>

**Design**: Anne Lefebvre

anne.lefebvre@ens-paris-saclay.fr

Languages: Manon BOUYÉ

manon.bouye@ens-paris-saclay.fr

#### Document:

For any *ARPE* transfer, a "Hosting agreement" is established by the ENS and the host institution. In particular, it covers the definition of the work assigned to the *normalien* and the material conditions for undertaking the research project. Once finalised, the *ARPE* agreement is signed by all parties (Representatives, the *ARPE* supervisors at the Teaching and Research Department, the Registry and Student Affairs and the supervisor at the host laboratory). A fully-fledged exchange between the laboratory and ENS Paris-Saclay takes place before and during the *ARPE* year, in particular with the *ARPE* supervisors of each department.

#### **Funding:**

The *normalien élève* is paid by the French government as a civil service trainee. Therefore, they cannot receive a salary or a bonus. On the other hand, the host laboratory can assist them with transport, housing and other related areas.

A *normalien étudiant* can receive financial assistance from their host laboratory and / or benefit of different scholarship programmes such as:

- Travel allowance for Outgoing International Mobility (*AMIS - Aide à La Mobilité Internationale Sortante*) from ENS Paris Saclay,
- The Idex international scholarships for internships from Université Paris-Saclay.
- Allowance of the Erasmus+ traineeship programme and the advantages associated with the Erasmus+ student status for mobilities in eligible countries.

Throughout the *ARPE* programme, *normaliens* are supported by ENS Paris-Saclay in academic and administrative matters.

If you have any questions, please contact <u>ri-outgoing@ens-paris-saclay.fr</u>