

# Frequently asked questions from international students in the Université Paris-Saclay “Mathematics and Applications” Master’s program

## WELCOME AND GENERAL INFORMATION

### **Is there any specific information concerning my arrival and my stay in France?**

The Graduate School of Mathematics has a page dedicated to international students:

➔ <https://www.universite-paris-saclay.fr/en/support-international-students-graduate-school-mathematics>

You will find all the necessary information about accommodation, transportation, administrative procedures (visa, residence permit), health procedures (doctor, vaccine), the Buddy Program, French courses, welcome events, etc. These are generally grouped together in detailed and downloadable guides.

To answer all your questions on administrative procedures (in particular related to Visas or residence permits), you can contact:

- GATE if you are a student: <https://gate.paris-saclay.fr/>
- Sciences Accueil if you are a PhD student: <https://www.science-accueil.org/>

Université Paris-Saclay also has a page on its website with additional information on life in France and French culture:

➔ <https://www.universite-paris-saclay.fr/en/campus-life/international-welcome-desk>

### **Can I meet someone who speaks my native language to help me during the first few days? Is there a community of international students to facilitate my integration?**

The University of Paris-Saclay Buddy Program is a free buddy and welcome system, specifically for international students. Depending on your background, nationality and campus, the platform pairs you up and puts you in touch with an international student already present in Paris-Saclay to help you and answer your questions.

➔ <https://www.universite-paris-saclay.fr/en/news/registration-for-the-buddy-programme-an-international-mentoring-programme-are-open>

You can also chat on Discord (<https://discord.gg/deThU6y92U>) on the Bureau Des Étudiants.e.s de Mathématiques d'Orsay (Mathematics Student Office) server, to introduce yourself and meet other French and International mathematics students in Paris-Saclay.

## ENGLISH LANGUAGE COACHING

### **Where can I find detailed course descriptions? Are these descriptions available in English?**

Here is some information:

- The presentation page of the various Master Year 1 (M1) and Master Year 2 (M2) programs on the Université Paris-Saclay website:

- ➔ <https://www.universite-paris-saclay.fr/en/education/master/mathematics-and-applications#presentation>
- The page dedicated to the Master in Mathematics and Applications on the Graduate School of Mathematics website:
- ➔ <https://www.universite-paris-saclay.fr/en/education-graduate-school-mathematics>
- The sites of the various mathematics departments to which your course is attached:
  - Département de Mathématiques:
  - ➔ <https://www.imo.universite-paris-saclay.fr/en/students/masters-programs/>
  - Département de Mathématiques de l'Université Versailles Saint-Quentin-en-Yveline UVSQ:
  - ➔ <http://www.departement.math.uvsq.fr/formations>
  - Département de Mathématiques de l'Université d'Evry:
  - ➔ <http://www.math-evry.cnrs.fr/departement/doku.php?id=formation:homef>

Depending on the website, the descriptions are more or less detailed and some are translated.

### **Are some of the courses in English?**

Only the M2 – Optimization program is taught entirely in English. However, some courses are taught in English:

- M1 – Applied Mathematics in Evry
- M1 – Jacques Hadamard Orsay
- M2 – Analysis, Number Theory and Geometry
- M2 – Data Sciences: Health, Insurance and Finance
- M2 – Mathematics of Randomness
- M2 – Mathematics, Vision, Learning
- M2 – Mathematics and Artificial Intelligence
- M2 – Jacques Hadamard Orsay
- M2 – Quantitative Finance

For the other courses, this is decided on a case-by-case basis depending on the teacher and the number of international students present. At the beginning of the year you can ask the course lecturer if they can give the course in English.

### **Can I get course materials in English?**

Some teachers provide course handouts in English. This is on a case-by-case basis. You can ask them.

They can also recommend course reading materials in English (books for example).

### **Do university libraries contain books in English?**

Yes, of course they do! Université Paris-Saclay lists all the libraries within its perimeter:

- ➔ <https://www.universite-paris-saclay.fr/vie-de-campus/bibliotheques>

The FOCUS service allows you to access all the books, ebooks, scientific journals, articles, databases and digital documents available in the libraries and documentation centers of Université Paris-Saclay.

## FRENCH LANGUAGE COURSES

### **Can I take French as a Foreign Language (FLE) class?**

There are several ways for you to learn and progress quickly in French (before or during your stay):

➔ <https://www.universite-paris-saclay.fr/en/campus-life/international-welcome-desk/learning-french>

The language center located at CentraleSupélec offers courses in French as a Foreign Language (FLE). Depending on your institution/enrollment component (UFR des Sciences, Université d'Evry, Université de Versailles, etc.) conditions may vary. The details are here:

➔ <https://www.sciences.universite-paris-saclay.fr/formation/service-des-langues/nos-formations/cours-de-fle-francais-langue-etrangere>

You can contact the person in charge of your course to incorporate the FLE courses taken during the year into your educational contract.

For certain M1 and M2 courses, the FLE courses are mandatory and validated by 2.5 ECTS.

If you are an FMJH scholarship holder, FLE courses are compulsory and you are normally automatically registered to follow them. If you need more information, please contact Alexandra Genesco <[alexandra.genesco@fondation-hadamard.fr](mailto:alexandra.genesco@fondation-hadamard.fr)>

## CHOOSING COURSES

### **How do I choose optional courses? Can anyone advise me?**

Your choices should be based on your career and study plans, but also on your personal tastes. If you have a mentor, it is their role to advise you: make an appointment with them to discuss it.

You can also turn to the professors in charge of the optional courses and/or to your master's supervisor for guidance.

The Graduate School funds mentoring in those master's courses that request it, priority being given to international students. Currently, only the Jacques Hadamard M1+M2 and Mathématiques de l'Intelligence Artificielle M1+M2 students are requesting it.

### **Who can explain to me how grading and evaluation works?**

You can ask your pedagogical secretary or your course director for further details.

### **Are international students eligible for scholarships and thesis funding?**

Yes, of course! Comprehensive information on possible financing options is available on the EDMH page ("Thesis topics" tab > Financing sources):

➔ <https://www.universite-paris-saclay.fr/ecoles-doctorales/ecole-doctorale-de-mathematiques-hadamard-edmh#edit-group-home>

### **What are the courses that train for jobs requiring French (or European) nationality?**

Formation à l'enseignement supérieur en Mathématique M1+M2 and MEEF M1+M2. These courses lead to competitive examinations for public service recruitment and employment contracts contain a nationality clause.

### **Do master's students have access to laboratory facilities?**

Master's students have access to the library and you can borrow books. You also have access to a self-service computer room with a printer.

The LMO Parity Committee can lend a laptop to women master's students who need one.

## INTERNSHIP AND TER

### **What is a TER? What is expected?**

The TER (Travail Encadré de Recherche – Supervised Research Work) is an internship supervised by an academic. It consists in the study of one of the proposed topics, then the writing of a thesis and finally its defense. This is a project you carry out in groups of two or three.

It is a foretaste of research, in which you must progress independently with some hints and advice from your supervisor.

### **How do I find a TER supervisor? When should I choose one? Can I choose a supervisor from outside Université Paris-Saclay?**

A list of TER topics will be sent by email or posted on e-campus in due course. At the same time, you can also contact a researcher from a lab whose research topics interest you. However, it is mandatory to choose your TER supervisor within Université Paris-Saclay.

*Specificities by site :*

#### At the UFR des Sciences:

The TERs of the M1 courses led by the UFR des Sciences can generally be supervised by a Université Paris-Saclay academic, if the topic was not proposed from the start in the lists provided, following a prior agreement with the person in charge.

This concerns the following courses:

- M1 – Applied Mathematics
- M1 – Mathematics of Artificial Intelligence
- M1 – Fundamental Mathematics
- M1 – Parcours Jacques Hadamard (ENS Paris-Saclay and Orsay sites)

Some proposals supervised in Paris can also be validated, as long as they meet expected standards. The student can therefore look for a supervisor themselves in this context.

You can not choose between a TER and an internship. Depending on the course, one or the other is imposed, except in the M1 – Training for Higher Education in Mathematics (preparation for the *agrégation*) where students can do a practical internship in high school instead.

#### At the University of Evry

For the M1 in Mathematics and Interactions the situation is normally as follows :

- an internship of 2 to 4 months (this is not a maximum) in a company, which starts around mid-April. This leads to a thesis and a defense at the end of August.
- for students with a good academic level and whose project is to do an academic thesis, they can, instead of the internship, write a dissertation (equivalent to the TER) at the LaMME, provided that they apply early and that the laboratory manager agrees. This results in the submission of a thesis and a defense at the end of August.

#### At the University of Versailles

For the M1 – Analysis, Modeling, Simulation, the TER is in fact part of the Introduction to Scientific Calculation UE (Unité d'Enseignement – Course Unit). The optional Introduction to Formal Calculus UE also contains a TER element and some students can therefore do 2 TERs if they choose this UE as an option. In both cases the TER is supervised by the person in charge of the UE.

#### **What is an internship? What does it consist in? What is expected?**

The internship consists in doing research in mathematics under the supervision of a researcher. This can be done in an academic environment or in a company's research center.

It usually starts in March and ends at the end of August.

#### *Specificities by site :*

##### At ENS Paris-Saclay:

The internship at ENS Paris-Saclay takes place either in a non-academic research laboratory or in an academic research laboratory outside the Île-de-France region, in France or elsewhere. It introduces students to different ways of doing research. This is a full-time internship, lasting at least 14 weeks, from mid-April to mid-August. It is to be defended both at the internship site and at the school and a thesis is to be produced.

##### At the University of Versailles :

- No internship in M1 – Applied Algebra
- For M1 – Statistical Engineering, Actuarial Science, Data Science: 6-month internship in a company starting on March 1<sup>st</sup>, followed by defense and evaluation by the internship supervisor.
- For M2 – Statistical Engineering, Actuarial Science, Data Science: this is a work-study program with a professionalization contract, which takes place throughout the year (students attend classes on Mondays, Tuesdays and Wednesdays in the first semester and on Mondays and Tuesdays in the second semester; the rest of the time they work in companies). The program ends with defense and evaluation by the company tutor.

- For the M1 – Mathematics and Statistical Learning, the an internship in a company is preferred. On the other hand, if a student with a more "research" profile and is aiming for a thesis and cannot find an internship in a company, they can look for a supervisor to do a TER instead. From March 1st, students of the M1 – Mathematics and Statistical Learning in Versailles have no more classes, in order to be able to devote themselves to the internship full time during 6 months. It is up to students to look for an internship, but the teachers provide advice and internet links during the first meeting of the year. The defense of the internship (or of the TER in exceptional cases) takes place at the end of August/first week of September.

#### At the University of Evry :

For the M1 – Applied Mathematics, there is no TER. An internship of at least 10 weeks is mandatory. The internship is evaluated via an internship report and a defense.

#### **How can you find an internship in a company?**

- By yourself.
- By exploring the Internet and using your network of family and friends.
- By contacting the various career centers:
  - Université Paris-Saclay Career Center: <https://universite-paris-saclay.jobteaser.com/fr/dashboard>
  - Université d'Evry Career Center: <https://www.univ-evry.fr/vie-de-campus/job-stage-emploi.html>
  - Université de Versailles Career Center: <https://www.uvsq.fr/rechercher-un-emploi-ou-stage>
  - Some companies post jobs on their own platform. Look them up.
- By fairs and forums: for example, the [Forum Emploi Maths \(FEM\)](#) which is organized at La Villette in Paris each year, allows you to meet companies in the sector and find internships:
  - ➔ <https://2022.forum-emploi-maths.com/public/pages/index.html>
- By contacting your professors.  
They can help you find an internship that corresponds to your professional project.
- For M2 students, an information meeting is planned at the beginning of December in Orsay to discuss the thesis and the internship in more detail. More information to come. This will be announced on the master's news page:
  - ➔ <https://www.universite-paris-saclay.fr/la-communaute-etudiante-graduate-school-mathematiques>.

#### **How can you find an academic internship?**

- By yourself.
- By exploring the Internet and using your network of family and friends.
- By contacting the various career centers:
  - Université Paris-Saclay Career Center: <https://universite-paris-saclay.jobteaser.com/fr/dashboard>
  - Université d'Evry Career Center: <https://www.univ-evry.fr/vie-de-campus/job-stage-emploi.html>
  - Université de Versailles Career Center: <https://www.uvsq.fr/rechercher-un-emploi-ou-stage>
  - INRAE Career Center: <https://www6.inrae.fr/mia-paris/Offres-d-emploi>
  - Some laboratories and NROs (INRIA, CEA, etc.) also have their own platform or publish offers on their website. Look them up.

- By contacting your professors.

Tell them about your project. The research they conduct puts them in touch with many researchers in laboratories. They will be able to advise you according to your project. Some professors also regularly send out offers by e-mail.

- For M2 students, an information meeting is planned at the beginning of December in Orsay to discuss the thesis and the internship in more detail. More information to come. This will be announced on the master's news page:
- ➔ <https://www.universite-paris-saclay.fr/la-communaute-etudiante-graduate-school-mathematiques>.

#### At ENS Paris-Saclay:

To find an internship, students can also read the annals of their classmates' internships in previous years, which are available on the moodle, or contact the DER M1 or L3 (Département d'Études et de Recherche de Mathématiques – Department of Mathematics Studies and Research), professors.

#### **How can I find an internship supervisor in the academic world? When should I choose one?**

To find an internship supervisor you can go to a professor whose topic you are interested in, to see if they could either become your supervisor or point you to researchers in this field.

It is best to start looking around November-December.

#### **Does my internship topic have to relate to my future thesis topic?**

Not necessarily, this is not compulsory. However, we advise you to choose a topic that could lead to a thesis because the supervisor will be able to guide you in this field to help you find a thesis topic later.

Note: thesis supervisors generally prefer to have the M2 student in an internship before, to get to know each other better.

In the same way, it allows the student to better understand his supervisor to establish a relationship of trust.

#### **Can I do an internship abroad? Is there any help available?**

Yes, you can. The Graduate School website has a page dedicated to the search for an international internship, with information on the various programs, scholarships, ways to find an internship, useful contacts, etc.

- ➔ <https://www.universite-paris-saclay.fr/graduate-schools/graduate-school-mathematiques/quel-type-dinformation-cherchez-vous-graduate-school-mathematiques/la-communaute-etudiante-graduate-school-mathematiques/trouver-un-stage-linternational>