

MPRI M1 at ENS Paris-Saclay

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Département Informatique
École Normale Supérieure Paris-Saclay

Outline

- Year of diversification and broadening
 - courses from MPRI M1
 - external courses from other masters (Université Paris Cité, Sorbonne Université ...)
 - ... M2 offers much more specialized courses
- Curriculum consists of à la carte courses (first semester mostly), should cover a broad spectrum of CS
- internship (second semester)
- Lab visits; at least one visit for each student

Internship

- Need to choose rapidly between two types of curricula:
- Long internship
 - first semester in Paris-Saclay (30 ECTS, min. 18 from MPRI M1 and 24 in CS)
 - 5+ months internship abroad
- Short internship
 - two semesters in Paris-Saclay (45 ECTS, min. 24 from MPRI M1 and 30 in CS)
 - 2.5+ months internship abroad
 - aim: strengthen knowledge in fundamentals or in another discipline like mathematics

Courses

- MPRI M1 (and local L3) courses:
 - start on Sept. 8, 2025
 - min. 18 ECTS if long internship and 24 if short
- External courses:
 - must be validated by the department
 - under your responsibility: e.g. finding out timetables, rooms, making sure the teacher or secretary sends me your grades, and managing second session exams in case of failure (before Sep. 1, 2026)

Course choice

- your choices have to be on the pedagogical server by Sep. 26, 2025 (https://admin.dptinfo.ens-cachan.fr/serveur_pedagogique/)
- Send me an email or request a meeting if you need to discuss your choices

Courses @ENS Paris Saclay

- Initiation to research (mandatory, 3 ECTS)
- Advanced complexity (7 ECTS)
- Rewriting techniques (4 ECTS)
- Basics of verification (7 ECTS)
- Algorithmics and bioinformatics (4 ECTS)
- Logical aspects of AI (4 ECTS + 4 ECTS)
- Software engineering (4 ECTS)
- Introduction to categories (4 ECTS)
- Networks (4 ECTS)
- Security (4 ECTS)

<https://lmf.cnrs.fr/deptinfo-ens/M1/Edts1-2025-26>

Courses @ENS Ulm

- Combinatorial optimization (4 ECTS)
- Introduction to computer vision (7 ECTS)
- Robot motion planning (7 ECTS)
- Models and languages for programming reactive systems (7 ECTS)
- Random structures and algorithms (7 ECTS)

https://diplome.di.ens.fr/calendar_fr.html

Ex. of External Courses (need approval!)

- Other CS masters at Paris-Saclay, including MPRI @ UFR

<https://sites.google.com/view/mastersagenda/>

- Math. Logic and Foundations of Comp. Sci. (Université Paris Cité) <http://www.math.univ-paris-diderot.fr/m2lmfi/>

- Master of computer science (Université Paris Cité, Sorbonne Université)

<http://www.informatique.univ-paris-diderot.fr/wiki/doku.php?id=enseignement:master1>

<http://www-master.ufr-info-p6.jussieu.fr/lmd/>

- Pure and applied mathematics, Université Paris-Saclay

[https://www.universite-paris-saclay.fr/fr/formation/master/](https://www.universite-paris-saclay.fr/fr/formation/master/mathematiques-et-applications#index-m1)

[mathematiques-et-applications#index-m1](https://www.universite-paris-saclay.fr/fr/formation/master/mathematiques-et-applications#index-m1)

- Introduction to Life Sciences (ENS Ulm)

<http://www.enseignement.biologie.ens.fr/spip.php?article160&lang=fr>

- Cogmaster, ENS Paris <https://cogmaster.ens.psl.eu/>

Other courses

- Some MPRI M2 courses can be followed (ask me if you want to do that), e.g.
 - Foundations of proof systems (3 ECTS)
 - Web data management (2nd period, 3 ECTS)
 - Comp. structures and logics for natural language modelling (3 ECTS)
 - Graph algorithms (first period, 3 ECTS)
 - Proof of programs (2nd period, 3 ECTS)
- Some L3 courses may also be taken (MPRI credits):
 - Computability, Logic, Formal Languages, Algorithmics ...

Advice on course choices

- ① Have a safety net
 - Plan ahead for a potential failure.
- ② Do not take every course!
 - Some courses are quite difficult / time consuming.
 - Keep some courses for next year.
 - Do not have a too important safety net: attempt to do well at a limited number of courses.
- ③ Stay in touch : Let me know if you drop one course, or if you worry about failure.

Internships

- abroad (except for international students)
- long internships (30 ETCS)
 - duration: 5 months between February and August
 - search: October–December with your tutor
- short internships (15 ETCS)
 - duration: .5 months between June and August
 - search: December–February with your tutor

Internship, start looking early

- Oct. – Nov. Discuss with your tutor
- before christmas:
 - Agreement with supervisors
 - Then, immediately, contact Laëtitia Rouches
(secretariat.info@ens-paris-saclay.fr) and follow administrative procedure
- Dec. – Jan. Finalise research project, funding, visa

Think about next year early

Possibilities (talk with me, your tutor and teachers):

- ① ARPE research year abroad
 - overseen by Stéphane Le Roux
(leroux@ens-paris-saclay.fr)
 - long internships
 - funding opportunities for unpaid students
contact `ri-outgoing@ens-paris-saclay.fr` and look
at `https://www.universite-paris-saclay.fr/fr/bourse-de-stage-a-letranger`
- ② M2 MPRI or another research-oriented Master
- ③ agrégation of computer science
- ④ bachelor in another field like biology, physics, economy, etc.

Studies are highly demanding

- Take care of your health: physical & mental!
- New: Sports at ENS Paris-Saclay on Thursday afternoon
- Attend the courses!

Social, medical and psychological difficulties

Nurse, doctor, psychologist are available

<http://ens-paris-saclay.fr/campus/sante>

Talk about psychological difficulties with other students, and with referent at dept. (Luc Lapointe).

Contacts

- Common issues:
 - `guillaume.scerri@ens-paris-saclay.fr` and teachers for course work
 - Laëtita Rouches `secretariat.info@ens-paris-saclay.fr` for administrative issues
 - sys. admins (`si@dptinfo.ens-cachan.fr`) for computer accounts
 - your tutor

We communicate via email $\Rightarrow$ Check your email and reply within reasonable time !