Université Paris-Saclay
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M2 Matériaux fonctionnels et applications

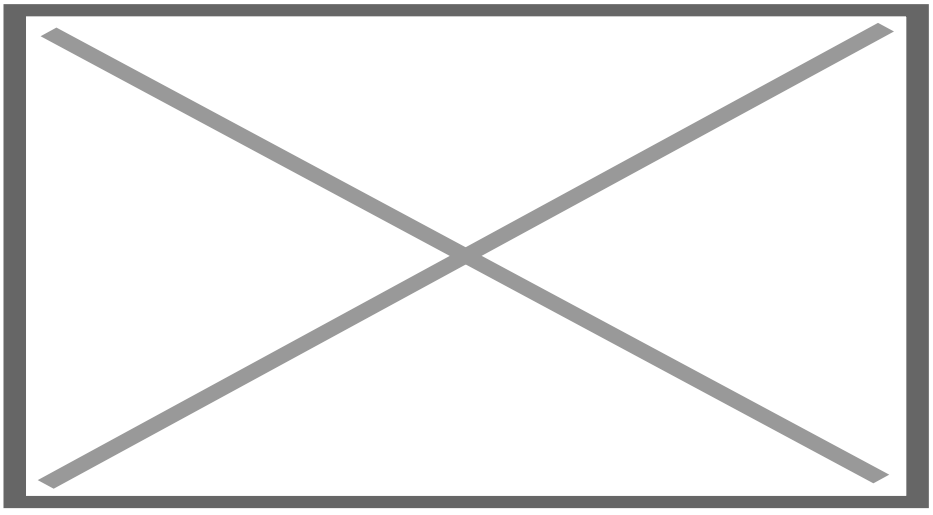
Master's degree
Specialisation Materials Science and Engineering
Enrolment type
Formation initiale
Formation continue
Language(s) of instruction
French

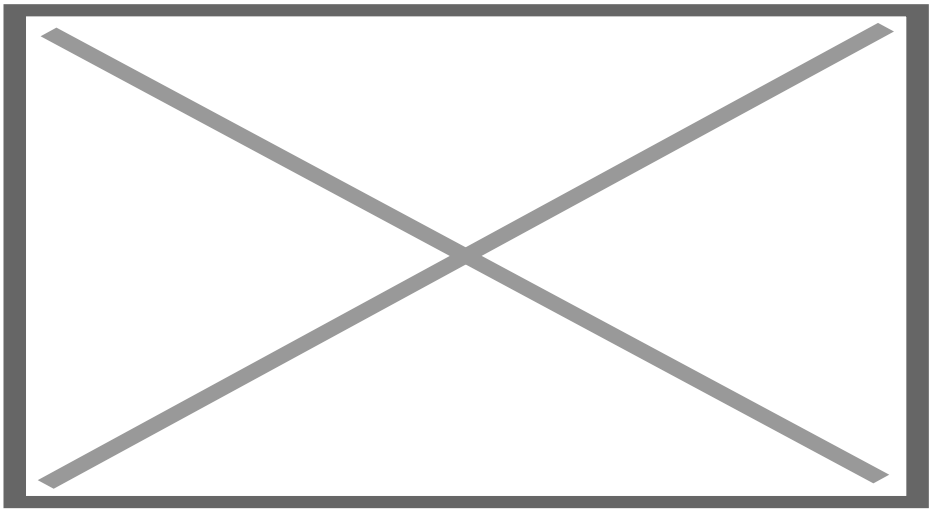
Master 2 — Functional Materials and Applications

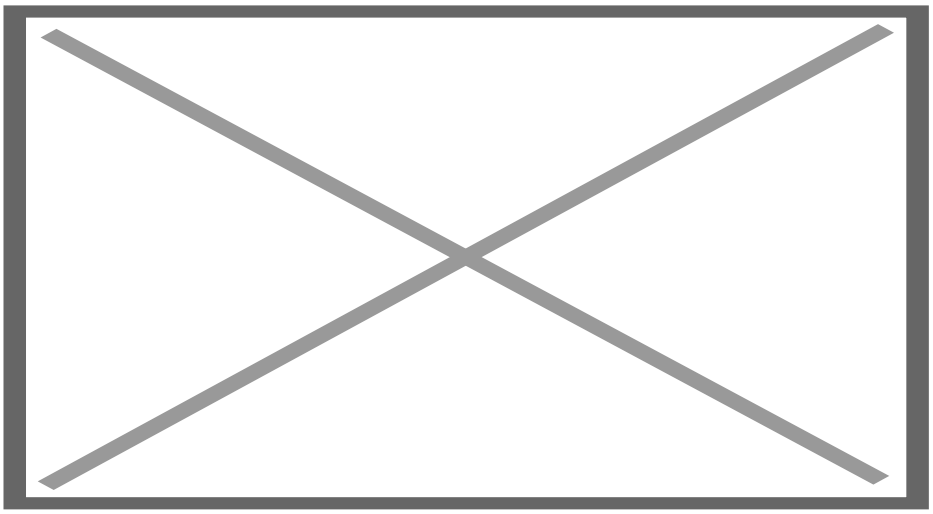
Materials represent a vast field, and the uniqueness of this program lies in its focus on the structure–property relationship, which enables students to understand and implement materials according to their functionalities. This approach plays a key role today in the development of functionalized objects and the pursuit of recyclability of processes, materials, and their applications.

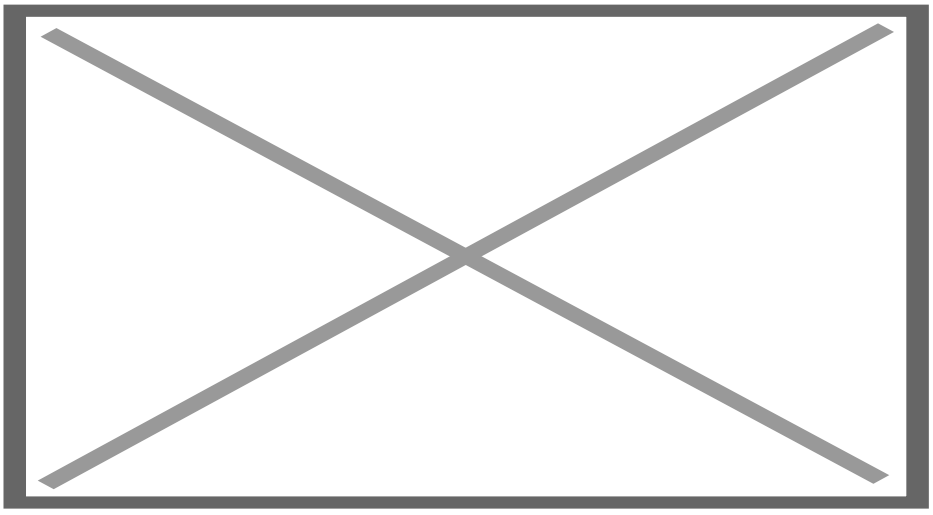
The curriculum is structured into four teaching modules, including one open module (sustainable development, social responsibility, or elective unit), a long laboratory immersion project, and a 5- to 6-month final internship.

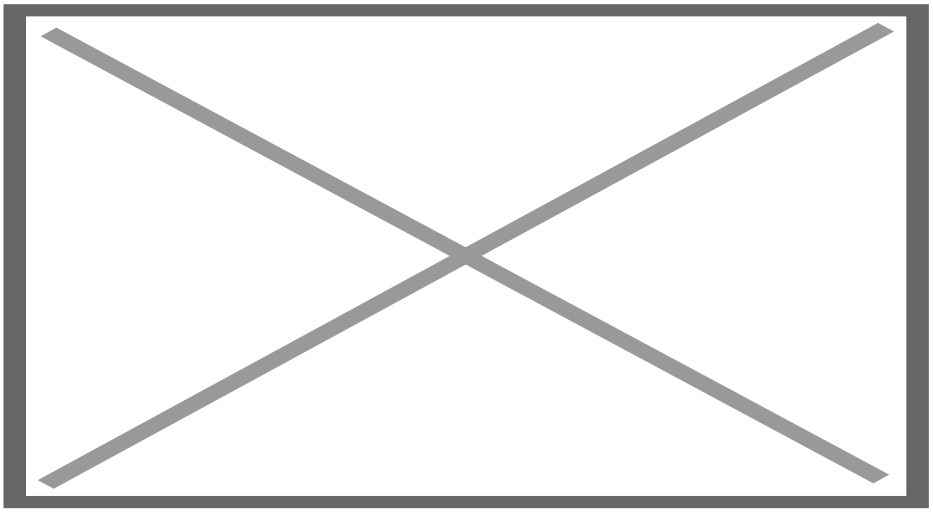
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Information

- Overview
- Application requirements
- Schedule

Présentation

Skills

The skills acquired are structured around a threefold approach — *Know-How ? Knowledge Sharing ? Interpersonal Skills* — enabling graduates to adapt effectively to the rapid evolution of professions in the field.

Objectives

- Provide a solid foundation in the field of materials science.
- Develop the ability to master the structure–property relationships of materials in a broad sense.
- Offer a well-balanced training program between materials design/synthesis and advanced characterization.

Débouchés

Further Study Opportunities

PhD

Students can go on to study at the Bar, the Judicial Academy, further studies in innovation management, doctoral programme, etc.
Engineering, research and development
Engineering methods and industrialisation
Engineer
Development Engineer
Design Engineer

Calendar

Start of programme (indicative date)
08/09/2026
End of programme (indicative date)
05/09/2027
Admission

Capacity

Available Places

24

Target Audience and Entry Requirements

The program is open to students holding a Bachelor’s degree in Science with a major in Physics, Chemistry, or Materials Science.
It is also accessible to students with a Master’s level (M1) in Physics, Chemistry, Mechanics, or Materials Science, as well as to those who have successfully completed the second year of an engineering school.

Période(s) de candidature

Inception Platform

From 01/04/2026 to 30/06/2026

Supporting documents

Compulsory supporting documents

Motivation letter.

All transcripts of the years / semesters validated since the high school diploma at the date of application.

Curriculum Vitae.

Additional supporting documents

Certificate of French (compulsory for non-French speakers).

VAP file (obligatory for all persons requesting a valuation of the assets to enter the diploma).

Supporting documents :
- Residence permit stating the country of residence of the first country
- Or receipt of request stating the country of first asylum
- Or document from the UNHCR granting refugee status
- Or receipt of refugee status request delivered in France
- Or residence permit stating the refugee status delivered in France
- Or document stating subsidiary protection in France or abroad
- Or document stating temporary protection in France or abroad.

Programme

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Initiation à l'apprentissage automatique en science des matériaux	2	Semestre 1	6	0	11			
Charger le détail								
Propriétés fonctionnelles des matériaux	3	Semestre 1	24					
Charger le détail								
Elaboration des solides fonctionnels	5	Semestre 1	24		12			
Charger le détail								
Matériaux amorphes : synthèse et propriétés	5	Semestre 1	18		18			
Charger le détail								

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Caractérisations avancées des matériaux	5	Semestre 1	30					

Charger le détail

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Projet d'immersion en laboratoire	4	Semestre 1			32			

Charger le détail

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Développement Durable et Responsabilité Sociétale	2	Semestre 1	18					

Charger le détail

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
UE libre Catalogue S1	2.5	Semestre 1						

Charger le détail

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Modéliser numériquement la thermodynamique et la microstructure des matériaux	5	Semestre 2	24		12			

Charger le détail

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Simulations à l'échelle atomique : des méthodes standard aux méthodes avancées	5	Semestre 2	12		24			

Charger le détail

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Magnétisme moléculaire, du solide et électronique de spin	5	Semestre 2	36					

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practica class
Charger le détail								
Procédés de couches minces	5	Semestre 2	40					
Charger le détail								

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	distanc learni cours
Stage	22	Semestre 2							
Charger le détail									

Teaching Location(s)

ORSAY

Contact

- **Matthieu LANCRY**

  Responsable M2 MFA

- **maxime cavillon**

  Responsable de formation

http://www.universite-paris-saclay.fr/formation/master/sciences-et-genie-des-materiaux/m2-materiaux-fonctionnels-et-applications