Université Paris-Saclay
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M1 Mécanique - Méthodes Mathématiques pour la Mécanique

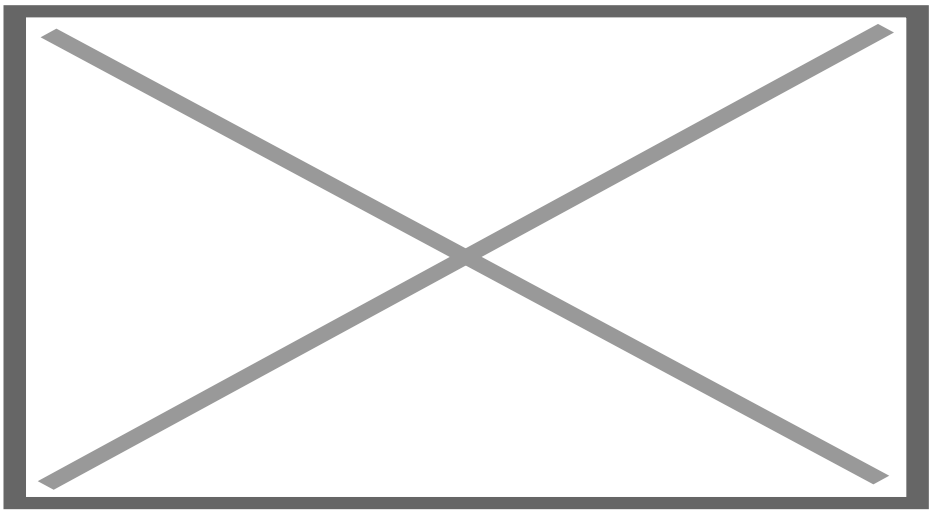
Master's degree
Specialisation Mechanics
Enrolment type
Formation initiale
Language(s) of instruction
French

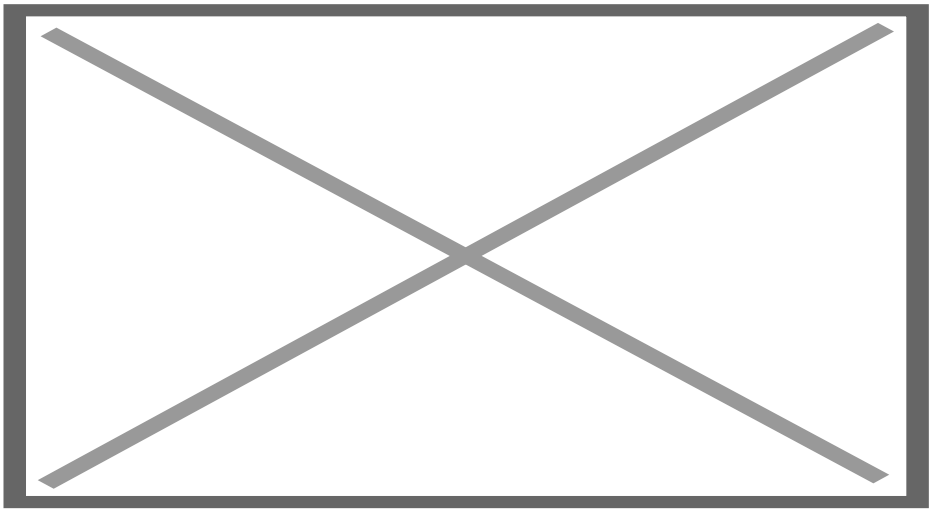
The MMM (Mechanical Engineering and Mathematics) program was created to address the current and future challenges of advanced mechanical technology industries, based on the understanding that this requires a strong foundation in the fundamentals of mechanics and mathematical and numerical methods.

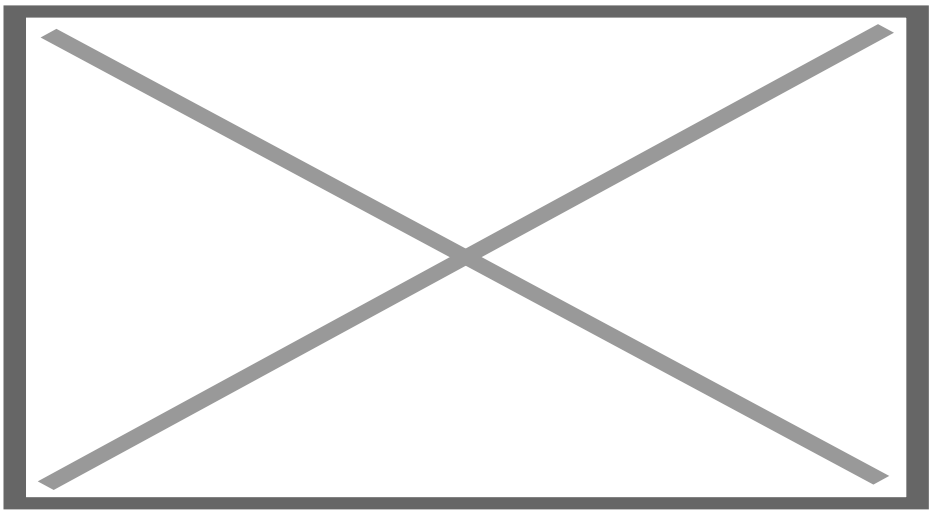
The MMM is the first year of the **Mathméca Paris** program.

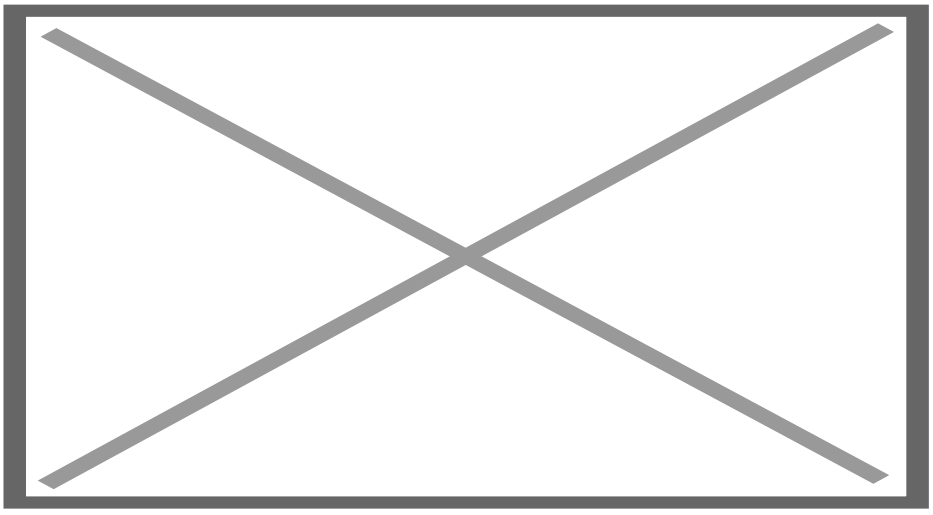
Semester 1 is divided into two periods. The first period (September-November) and the second (November-January) each comprise five modules. Semester 2 (February-April) consists of six theoretical modules plus two application modules (primarily computer-based), assessed by a final report, plus the project/internship. All modules are 24 hours and worth 3 ECTS credits, except for the research initiation project (6 ECTS credits). In May, after the Semester 2 exams, three weeks are dedicated to the project.

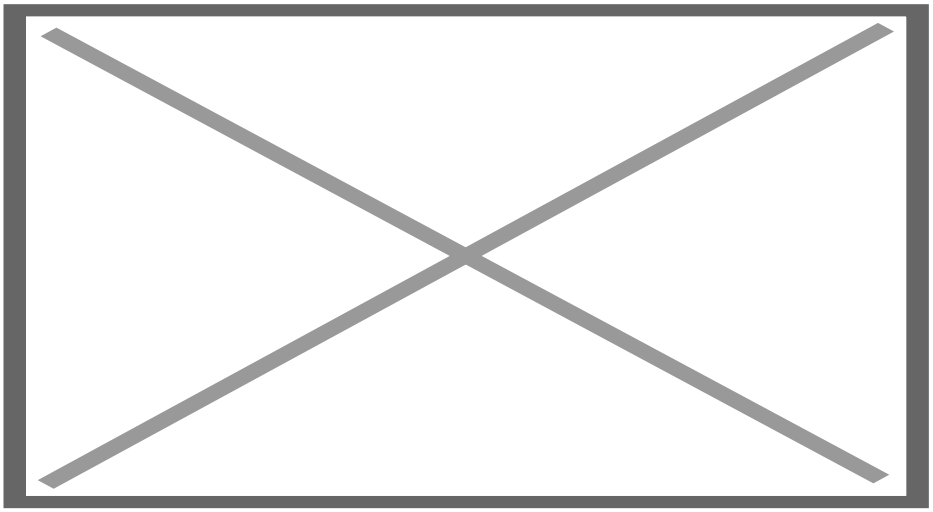
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Information

- Overview
- Application requirements
- Schedule

Présentation

Skills

To independently formulate a mechanics problem to meet a given objective, from modeling the system under study to modeling stresses and boundary conditions, proposing an associated solution approach.

Objectives

To provide in-depth preparation on the fundamentals of mechanics, mathematical modeling and digital tools; to prepare for careers in research and development in mechanical technology industries (automotive, aeronautics and space, structural engineering, energy engineering, environmental engineering, etc.)

Débouchés

Career prospects

R&D Engineer

Research professions
Lecturer (after a PhD)

Further Study Opportunities

Master’s in Mathematics
Master of Teaching Professions
Master of applied physics
Master’s Degree in Engineering or Mechanical Engineering
Mechanical Engineering School

Calendar

Start of programme (indicative date)
21/09/2026
End of programme (indicative date)
30/06/2027
Admission

Admission Route

Mathematics
Physics
Mechanics
Engineering Sciences

Capacity

Available Places

30

Target Audience and Entry Requirements

General mechanics, statics elements
Mathematical analysis, elements of linear algebra

Période(s) de candidature

Inception Platform

From 15/01/2026 to 16/03/2026

MonMaster Platform

From February 17th to March 16th, 2026

To find out which platform you should apply through, please see the Masters' applications and enrolment page.

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	
Mécanique analytique Charger le détail	3	Semestre 1							
Introduction à la géométrie différentielle	3	Semestre 1							

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	
Charger le détail									
Bases de la mécanique des milieux continus	3	Semestre 1							
Charger le détail									
Mathématiques pour la mécanique	3	Semestre 1	15	9					
Charger le détail									
Introduction à l'analyse fonctionnelle	3	Semestre 2							
Charger le détail									

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	di le
Plasticité	3	Semestre 2							
Charger le détail									
Modélisation des Solides	3	Semestre 2							
Charger le détail									
Théorie des Structures	3	Semestre 2							
Charger le détail									
Stabilité et bifurcation	3	Semestre 2							
Charger le détail									
Mécanique des fluides compressibles	3	Semestre 2							
Charger le détail									

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	dist lea co

Simulation en mécanique des fluides	3	Semestre 2
Charger le détail		
Projet de recherche	6	Semestre 2
Charger le détail		
Application des éléments finis	3	Semestre 2
Charger le détail		
Anglais	3	Semestre 1
Charger le détail		
Vibrations et durabilité structurale	3	Semestre 1
Charger le détail		
Acoustique et réduction du bruit	3	Annualisé
Charger le détail		

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	dista lear cou
MMC-Fluides	3	Semestre 1							
Charger le détail									
MMC-Solides	3	Semestre 1							
Charger le détail									
Méthodes numériques	3	Semestre 1							
Charger le détail									

Teaching Location(s)

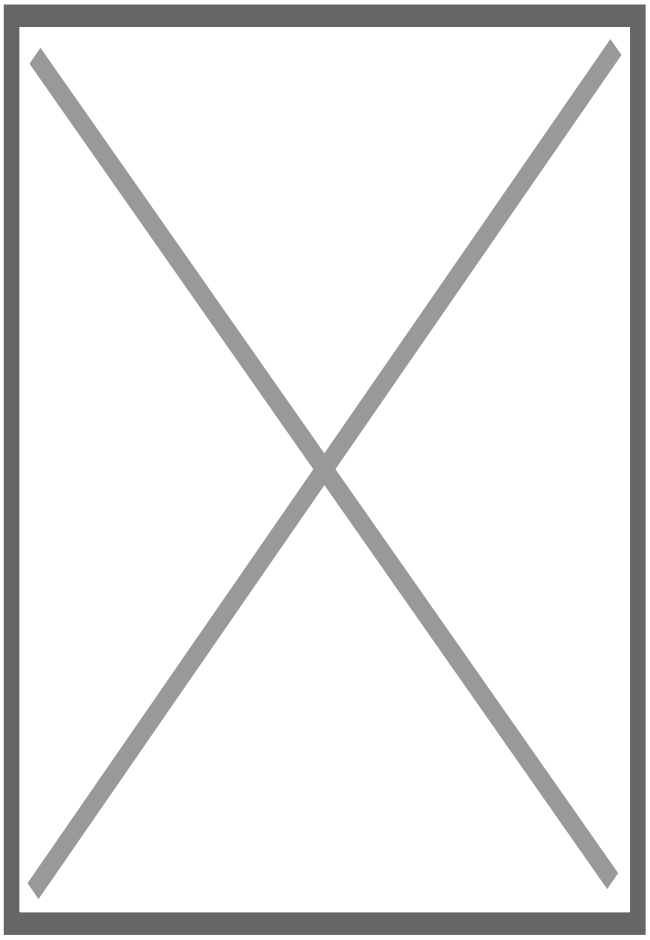
VERSAILLES

Academic Partner(s)

UVSQ

Training campus

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Versailles

Versailles
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RER C Versailles Château Rive gauche
Voir
Student restaurant (CROUS)
Library
Student residence

Contact

- **Paolo VANNUCCI**
- **Jean LERBET**

http://www.universite-paris-saclay.fr/formation/master/mecanique/m1-mecanique-methodes-mathematiques-pour-la-mecanique