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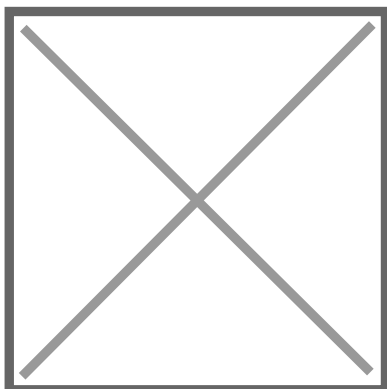
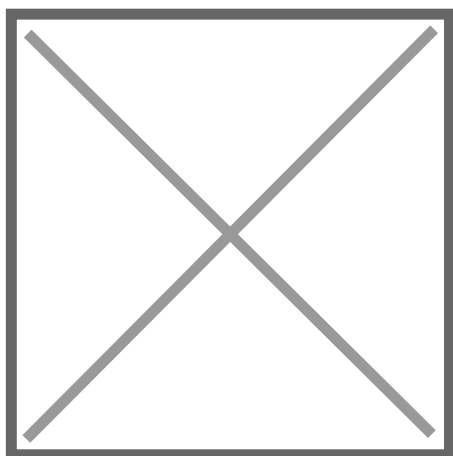
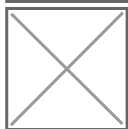
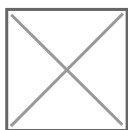
Envoyer

Une erreur est survenue. Merci de réessayer ultérieurement

Le mail de partage a bien été envoyé.

Add to Compare

M1 Mechanics - International track



Master's degree

Specialisation Mechanics

Enrolment type

Full-time academic programmes

Language(s) of instruction

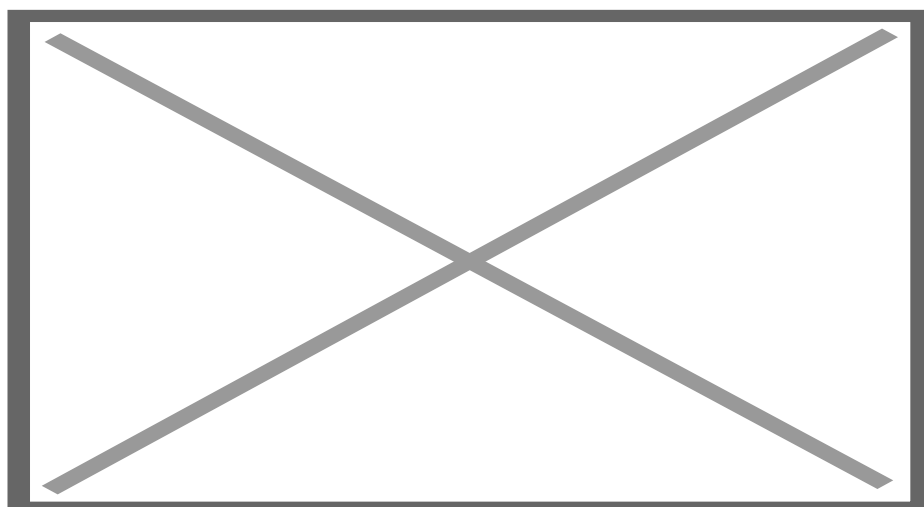
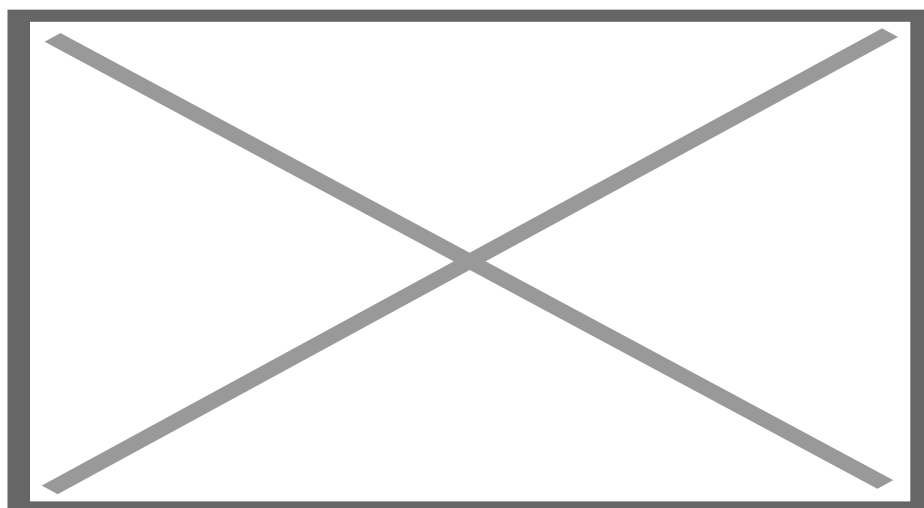
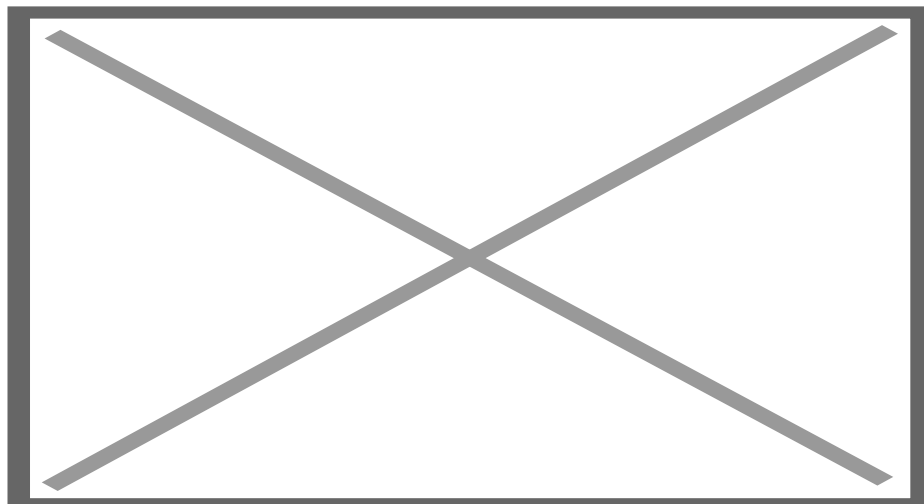
English

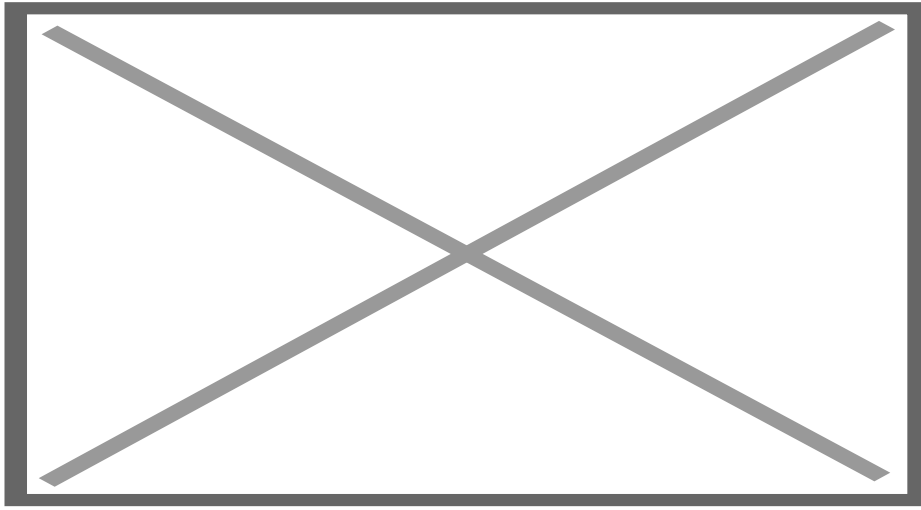
This Master's programme is aimed at international and French-speaking students.

Succession of classes, each extending on a semi-semester, in a group with a quasi-individual size (project, lab work), to a size of a few tens of students (Tutorial), to a lecture including a hundred of students.

[Télécharger la fiche détaillée](#)

[Apply Now](#)





Information

- [Overview](#)
- [Application requirements](#)
- [Schedule](#)

Présentation

Skills

Independently formulate a mechanical problem to meet a given objective, from modelling the study system to modelling the stresses and boundary conditions, by proposing a relevant strategy to resolve them.

Objectives

Develop an autonomous work capacity in a foreign country with its own rules and school of thought, relying notably on formalism.

Possess a knowledge fit for a M1 student in mechanics and closely related topics (coupled physics, modelling...).

Débouchés

Further Study Opportunities

Other M2 Tracks (French C1 + Prerequisites)

Calendar

Start of programme (indicative date)

07/09/2026

End of programme (indicative date)

26/06/2027

Admission

Admission Route

Mechanics

Engineering Sciences

Capacity

Available Places

7

Target Audience and Entry Requirements

Physics and mechanics basics

Outils mathématiques associés (linear algebra, differential calculation...)

Période(s) de candidature

Inception Platform

From 30/01/2026 to 15/06/2026

Supporting documents

Compulsory supporting documents

2nd letter of recommendation (compulsory for candidates who have already been enrolled in higher education in France before).

Motivation letter.

Letter of recommendation or internship evaluation.

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

Certificate of English level (compulsory for non-English speakers).

Curriculum Vitae.

Detailed description and hourly volume of courses taken since the beginning of the university program.

Additional supporting documents

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

Tronc commun

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	discovery/practical class
Continuum mechanics	4.5	Semestre 1	12	17	4				
■									

Continuum mechanics

ECTS : 4.5

Semester: Semestre 1

Detail

Lecture: 12

Practical study : 4

Directed study: 17

Language(s) of instruction

Français

Remote teaching

non

Prerequisites

None

Type of assessment

Evaluation Continue non Intégrale

Fluid mechanics	4.5	Semestre 1	15	15
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Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	discovery/practical class
■									

Fluid mechanics

ECTS : 4.5

Semester: Semestre 1

Detail

Lecture: 15

Directed study: 15

Tutored project 3

Language(s) of instruction

Français

Remote teaching

non

Prerequisites

Fundamental concepts and skills in fluid mechanics:

- Dimensional analysis
- Local and macroscopic balance equations for mass, species, momentum and energy
- Evolution of different fields (velocity, pressure, temperature) and their interactions
- Determination of stresses, forces, powers, efficiencies, head losses
- Boundary layer

Type of assessment

Evaluation Continue non Intégrale

[Structural](#)

[dynamics](#)

[and acoustics](#)

4.5	Semestre 1	13.5	13.5	3
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Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	discovery
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Structural dynamics and acoustics

ECTS : 4.5

Semester: Semestre 1

Detail

Lecture: 13.5

Practical study : 3

Directed study: 13.5

Tutored project 3

Language(s) of instruction

Français

Remote teaching

non

Prerequisites

Continuum mechanics

Type of assessment

Evaluation Continue non Intégrale

[Projet](#) 5.5 Semestre 1

Projet

ECTS : 5.5

Semester: Semestre 1

Language(s) of instruction

Français

Remote teaching

non

Type of assessment

Evaluation Continue non Intégrale

[Langue : Français](#)
[Langue Etrangère](#) 2 Semestre 1 21
[pour les non francophones ou Anglais](#)

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	discovery learning
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■

Langue : Français Langue Etrangère pour les non francophones ou Anglais

ECTS : 2

Semester: Semestre 1

Detail

Lecture: 21

Language(s) of instruction

Français

Remote teaching

non

Prerequisites

B1 level in French

Type of assessment

Evaluation Continue non Intégrale

Cours obligatoire

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	discovery learning
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[Introduction](#)

[to mass, momentum and heat transfer](#)

4.5	Semestre 1	16.5	16.5
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Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	distance learning
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■

Introduction to mass, momentum and heat transfer

ECTS : 4.5

Semester: Semestre 1

Detail

Lecture: 16.5

Directed study: 16.5

Language(s) of instruction

Français

Remote teaching

non

Prerequisites

Basics of mathematics and thermodynamics
(studied during the first 2 university years)

Type of assessment

Evaluation Continue non Intégrale

Cours électif

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	distance learning
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[Non linear behaviour of materials](#)

4.5	Semestre 1	12	12
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Non linear behaviour of materials

ECTS : 4.5

Semester: Semestre 1

Detail

Lecture: 12

Directed study: 12

Tutored project 9

Language(s) of instruction

Français

Remote teaching

non

Prerequisites

Continuum mechanics or Materials Model representations and analysis

Type of assessment

Evaluation Continue non Intégrale

Heat transfer	4.5	Semestre 1	15	18
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Heat transfer

ECTS : 4.5

Semester: Semestre 1

Detail

Lecture: 15

Directed study: 18

Language(s) of instruction

Français

Remote teaching

non

Prerequisites

Basics of mathematics and thermodynamics (studied during the first 2 university years)

Type of assessment

Evaluation Continue non Intégrale

Machine learning	4.5	Semestre 1	18	15
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Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	distance learning
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■

Machine learning

ECTS : 4.5

Semester: Semestre 1

Detail

Lecture: 18

Practical study : 15

Language(s) of instruction

Français

Remote teaching

non

Prerequisites

Notions of linear algebra, probabilities, and scientific programming in Python (numpy)

Type of assessment

Evaluation Continue non Intégrale

Tronc commun

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	distance learning
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[Projet](#) 5 Semestre 2

■

Projet

ECTS : 5

Semester: Semestre 2

Language(s) of instruction

Français

Remote teaching

non

Type of assessment

Evaluation Continue non Intégrale

[Méthodes numériques](#) 4.5 Semestre 2 15

Méthodes numériques

ECTS : 4.5

Semester: Semestre 2

Detail

Lecture: 15

Tutored project 18

Language(s) of instruction

Français

Remote teaching

non

Prerequisites

Mechanical Fields for Solids and Fluids-basic governing equations and meaning of these equations Basic notions of differentiation and integration Basic notions on Hilbert spaces and weak formulations of PDEs Basic notions on stability and prime notions on space and time approximation schemes for PDEs. Roughly speaking : a first year CS level of knowledge in Mathematics and Mechanics or a 3rd University year in Applied Mathematics to Mechanics.

Type of assessment

Evaluation Continue non Intégrale

[Langue :](#)

[Français](#)

[Langue](#)

[Etrangère](#)

[pour les non](#)

[francophones](#)

[ou Anglais](#)

2

Semestre

2

21

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	discovery/learning class
----------	------	----------	---------	----------------	-----------------	------------------------	-------------------------	--------------------------------	--------------------------

■

Langue : Français Langue Etrangère pour les non francophones ou Anglais

ECTS : 2

Semester: Semestre 2

Detail

Lecture: 21

Language(s) of instruction

Français

Remote teaching

non

Prerequisites

B1 level in French

Type of assessment

Evaluation Continue non Intégrale

Cours obligatoires

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	discovery/learning class
----------	------	----------	---------	----------------	-----------------	------------------------	-------------------------	--------------------------------	--------------------------

[Multiphysics coupling simulations with FE](#)

4.5	Semestre 2	15		15
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Multiphysics coupling simulations with FE

ECTS : 4.5
Semester: Semestre 2
Detail
Lecture: 15
Practical study : 15
Tutored project 6
Language(s) of instruction
Français
Remote teaching
non
Prerequisites

Partial Differential Equations Electromagnetism
or Materials or Continuum mechanics or
Introduction to mass, momentum and heat
transfer

Type of assessment
Evaluation Continue non Intégrale

Optimisation	4.5	Semestre 2	24	10.5
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Optimisation

ECTS : 4.5
Semester: Semestre 2
Detail
Lecture: 24
Directed study: 10.5
Language(s) of instruction
Français
Remote teaching
non
Prerequisites

Basics in functional analysis and probability,
knowledge of a programming environment

Type of assessment
Evaluation Continue non Intégrale

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	dist
Engineering course with applicative workshop	5	Semestre 2	16.5	16.5					co
■									

Engineering course with applicative workshop

ECTS : 5

Semester: Semestre 2

Detail

Lecture: 16.5

Directed study: 16.5

Tutored project 48

Language(s) of instruction

Français

Remote teaching

non

Type of assessment

Evaluation Continue non Intégrale

[Fabrication additive \(course and applicative workshop\)](#)

■

Fabrication additive (course and applicative workshop)

ECTS : 5

Semester: Semestre 2

Detail

Lecture: 12

Tutored project 48

Language(s) of instruction

Français

Remote teaching

non

Prerequisites

Continuum mechanics and one of the following courses: Materials, Transport phenomena, Thermodynamics.

Type of assessment

Evaluation Continue non Intégrale

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	dist
Engineering elective course	4.5	Semestre 2	16.5	16.5					co
■									

Engineering elective course

ECTS : 4.5

Semester: Semestre 2

Detail

Lecture: 16.5

Directed study: 16.5

Language(s) of instruction

Français

Remote teaching

non

Type of assessment

Evaluation Continue non Intégrale

Teaching Location(s)

GIF SUR YVETTE

Contact

- **Ann-Lenaig HAMON**
MCF
- **CentraleSupélec SUPPORT SCOLARITE**
Support scolarité

<http://www.universite-paris-saclay.fr/formation/master/mecanique/m1-mechanics-international-track>