

Field of study **Sciences and engineering**

Training available in

Initial training

Recognition of prior learning

#### How to apply :

<https://www.univ-gustave-eiffel.fr/en/formation/applications-and-enrolment/applications>

#### Course venue :

Campus Marne la Vallée - Champs sur Marne - Bâtiment Copernic 5 Boulevard Descartes 77420 Champs-sur-Marne

#### Calendar :

Foundation classes for one month, then ten weeks of core modules, then eight weeks of specialisation, and finally three to six weeks of work placement, starting from April.

#### Contacts :

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#### More information :

For further details :

<https://www.univ-gustave-eiffel.fr/international/etudiants-internationaux>

Service Information,

Orientation et Insertion Professionnelle (SIO-IP) :

[sio@univ-eiffel.fr](mailto:sio@univ-eiffel.fr) / Tel : +33 1 60 95 76 76



## Master's degree Mathematics and applications Mathematics and computer science



UFR de Mathématiques (MATHS)

Master's degree M2

#### TO GET THERE

M1 in Mathematics or Computer Science, plus L2-level skills in the other discipline.

#### ACQUIRED SKILLS

Master's level in areas at the interface of mathematics and computer science: optimisation, analysis, geometry, combinatorics and machine learning.

Development of research skills: autonomy, personal work on specialised themes, literature review.

Advanced programming skills oriented towards applications in mathematics and computer science.

#### YOUR FUTURE CAREER

Students can pursue further studies with a PhD in mathematics or computer science.

Jobs in R&D in areas at the interface of the two disciplines, typically optimisation and machine learning.

Classes in machine learning, in particular, promote the development of professional skills that are highly sought after in the private sector, to make graduates immediately operational.

#### BENEFITS OF THE PROGRAM

This Master's is unique in France, covering both mathematics and computer science, with requirements in both disciplines. It is based on the teaching team's joint extensive experience, developed in the prestigious Bézout Labex.

More information



# PROGRAM

## SEMESTER 3

**Socle mathématique** (ECTS:6)

**Socle informatique** (ECTS:6)

**Optimisation discrète et continue** (ECTS:6)

**UE OPTIONNELLES 3 UE A 6 ECTS A VALIDER**

**Optimisation discrète et continue** (ECTS:6)

- Optimisation discrète

- Optimisation continue

**Géométrie et Combinatoire** (ECTS:6)

- Géométrie

- Combinatoire

**Science des Données** (ECTS:6)

- Fondements mathématiques des sciences des données

- Fondements informatiques des sciences des données

**UE libre** (ECTS:6)

## SEMESTER 4

**Stage** (ECTS:18)

**UE OPTIONNELLES 2 UE A 6 ECTS A VALIDER**

**Sciences de données avancées** (ECTS:6)

**Géométrie avancée** (ECTS:6)

**Combinatoire algébrique et calcul formel** (ECTS:6)