

Field of study **Sciences and engineering**

Training available in

Initial training

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
Clément Ader Boulevard Descartes 77420 Champs-sur-Marne

Calendar :

Contacts :

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Academic coordinator

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Academic coordinator

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TASSEL Stephane

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 / Tel : +33 1 60 95 76 76



Bachelor's degree Engineering Sciences Engineering Sciences



Institut Francilien des Sciences Appliquées (IFSA)

Bachelor's degree L1

TO GET THERE

High school diploma with science (S) specialisation (specialisation in Maths or Physics and Chemistry) or a general high school diploma (the specialisations required are Maths or Physics and Chemistry; Advanced Maths is strongly recommended). We are working to include students with a high school diploma in science and technology for industry and sustainable development. First year: recruitment of high-school students (non-French high-school diploma, Campus France, French baccalaureate).

ACQUIRED SKILLS

Solid training in general scientific theory, experimentation and digital technologies.

Ability to implement an experimental approach; collect, manage and present results; explain and present a project process, the knowledge concerned and the results obtained verbally and in writing.

Ability to analyse a technical problem and the methods chosen to solve it.

Mastery of mathematical, physics and chemistry tools related to the field of engineering sciences (adapted to each of the three programmes).

Ability to extract information from technical documents, handle units and orders of magnitude and use a range of digital media.

Ability to select and use a suitable program: multiple practical sessions and group projects (working in pairs, multidisciplinary projects, oral assessments, professional culture).

Techniques of expression and oral communication.

English language skills

YOUR FUTURE CAREER

After a joint first year with the Physics and Chemistry Licence course, students continue with the Engineering Sciences Licence degree in the second and third year.

Three programmes are available: Industrial Engineering, Organisational Engineering and Environmental Process Engineering.

Students receive guidance in the first year to help them define their career objectives.

After the third year, most students of the Engineering Sciences Licence continue with a Master's or enrol at an engineering school.

Careers

BENEFITS OF THE PROGRAM

The first year is sufficiently general to allow students to choose a specialisation in one of the Engineering Sciences Licence programmes (or even Physics and Chemistry) at the end of the year. Options are available in the second semester to allow each student to personalise their course. The first year is a transitional year from high school and teaching methods are adapted accordingly (groups of 30 to 35 students, no whole-year lectures).

More information



PROGRAM

SEMESTER 1

Mathematics 1 (ECTS:6)

Physical 1 (ECTS:7)

- Optique géométrique
- Cinématique et dynamique du point matériel

Chimie générale (ECTS:5)

Electricity - electronic 1 (ECTS:5)

- Electrocinétique 1 - circuits en régime continu
- Electronique numérique 1 - circuits combinatoires

Informatique - C2I (ECTS:2)

Anglais 1 (ECTS:2)

Méthodologie (ECTS:3)

Anglais renforcé 1 (ECTS:5)

SEMESTER 2

Bases du Calcul matriciel et du Calcul vectoriel (ECTS:6)

Physique 2 bases d'optique ondulatoire et de thermodynamique (ECTS:6)

- Optique ondulatoire 1
- Bases de la thermodynamique

Cinétique chimique et équilibres en solution aqueuse (ECTS:6)

Electricité - Electronique 2 (ECTS:4)

- Electrocinétique 2 - circuits en régime sinusoïdal
- Electronique numérique 2 - circuits séquentiels

Introduction à la mécanique des fluides et des solides (ECTS:2)

Anglais 2 (ECTS:2)

Chimie au quotidien (ECTS:2)

Cycle de vie de produits (ECTS:2)

Enjeux de l'environnement (ECTS:2)

Expériences de physique 1 (ECTS:2)

Initiation à l'électronique programmable (ECTS:2)

Initiation à la science des matériaux (ECTS:2)

Projet personnel de formation (ECTS:2)

Stage (ECTS:2)

UE libre (ECTS:2)

Anglais renforcé 2 (ECTS:6)