

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
Clément Ader Boulevard Descartes 77420 Champs-sur-Marne

Calendar :

The programme includes an optional work placement in a company or research laboratory.

Contacts :

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GRUBER Raymond
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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 / Tel : +33 1 60 95 76 76



Bachelor's degree Physics and Chemistry Chemistry and its Applications



Institut Francilien des Sciences Appliquées (IFSA)

Bachelor's degree L3

TO GET THERE

Admission to third year after two years of general training in chemistry.

ACQUIRED SKILLS

Acquisition of sound general scientific knowledge at the theoretical, experimental and numerical levels;
Ability to solve theoretical problems in the field of chemistry and its applications (materials, energy, environment);
Ability to implement an experimental approach;
Ability to collect, manage and present results;
Ability to explain and present a project method, the knowledge involved and the results obtained both orally and in writing.

YOUR FUTURE CAREER

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

This Licence gives students access to the Master's degrees in "Chemistry", "Risks and the Environment" or "Science and Materials Engineering" at Université Gustave Eiffel. It can also lead to a Master's in chemistry at a different university, or a degree at a general engineering school.

BENEFITS OF THE PROGRAM

The Licence degree covers all the different fields of chemistry, thus allowing students to specialise in any area later on. Students choose to minor in physics, mechanics or electronics, electrical energy and automation (6 ECTS per semester), depending on their personal, professional and academic ambitions. The first semester of the third year includes an introductory unit on computer-based numerical methods and the second semester includes a unit on a chemistry project, during which students work in pairs to carry out their own theoretical, numerical and/or experimental study. In the second semester, students can choose to study an option in materials or sensors or carry out an internship in a company (or even a research laboratory), depending on their objectives.

PROGRAM

SEMESTER 5

Mathématiques - 5 (ECTS:4)
Initiation aux méthodes numériques (ECTS:3)
Anglais-5 (ECTS:2)
Electromagnétisme et ondes électromagnétiques (ECTS:6)
Expériences de physique (ECTS:3)
Physique nucléaire et physique des particules (ECTS:3)
Référentiels et champs centraux (ECTS:3)
Traitement du signal analogique (ECTS:3)
Electronique analogique 2 (ECTS:3)
Mécanique Quantique (ECTS:4)
Méthodes d'Analyse chimique 1 (ECTS:2)
Introduction aux transferts thermiques (ECTS:3)
Introduction aux transferts convectifs et radiatifs (ECTS:3)

SEMESTER 6

Anglais 6 (ECTS:2)
Matériaux inorganiques et minéraux (ECTS:4)
Physique statistique (ECTS:4)
Ondes acoustiques (ECTS:2)
Physique relativiste (ECTS:3)
Optique ondulatoire 2 (ECTS:3)
Projet disciplinaire en physique (ECTS:3)
Introduction à la science des matériaux (ECTS:3)
Capteurs (ECTS:3)
Stage (ECTS:3)
UE libre (ECTS:3)
Automatique (ECTS:6)
Dynamique des fluides (ECTS:4)
Initiation aux différences et éléments finis 1 (ECTS:2)
Spectroscopie atomique et moléculaire (ECTS:6)