

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 :

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

#### Contacts :

MALAVERGNE Valérie  
Academic coordinator (L2)

GRUBER Raymond  
Academic coordinator (L3)

PIRES Elisabete (L2)  
Academic secretary  
elisabete.pires@univ-eiffel.fr  
Phone number: 01.60.95.72.03  
Building : Clément Ader  
Office : 120

RICHARD Veronique (L3)  
Secrétaire pédagogique  
veronique.richard@univ-eiffel.fr  
Phone number : 01.60.95.73.53  
Building : Clément Ader  
Office : 120

#### 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

## Bachelor's degree Physics and Chemistry Mechanics



Institut Francilien des Sciences Appliquées (IFSA)

Bachelor's degree L3

#### TO GET THERE

Admission to third year after two years of general training in mechanics. Application via eCandidat.

#### ACQUIRED SKILLS

Acquisition of sound general scientific knowledge at the theoretical, experimental and numerical levels; ability to solve theoretical problems in the field of mechanics and its applications; 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

Most students pursue further study through a Master's degree or at an engineering school. This Licence gives graduates access to the "Civil Engineering" or "Mechanics" Master's at Université Gustave Eiffel, or the "Mechanics" programme at Paris-Est School of Engineering. It can also lead to a Master's degree in mechanics at a different university or engineering school.

#### BENEFITS OF THE PROGRAM

This Licence degree covers all the different fields of mechanics, so students can specialise in any area later on. Students choose a minor in physics; electronics, electrical energy and automation; or chemistry (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 mechanics 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 research laboratory, depending on their objectives.

More information



# PROGRAM

## SEMESTER 5

**Mathématiques - 5** (ECTS:4)  
**Initiation aux méthodes numériques** (ECTS:3)  
**Anglais-5** (ECTS:2)  
**Approche énergétique et équations de Lagrange** (ECTS:3)  
**Mécanique des systèmes de solides rigides et CAO** (ECTS:3)  
**Mécanique des systèmes déformables** (ECTS:3)  
**Traitement du signal analogique** (ECTS:3)  
**Electronique analogique 2** (ECTS:3)  
**Mécanique Quantique** (ECTS:4)  
**Electromagnétisme et ondes électromagnétiques** (ECTS:6)  
**Introduction aux transferts thermiques** (ECTS:3)  
**Introduction aux transferts convectifs et radiatifs** (ECTS:3)  
**Analyse chimique 1** (ECTS:2)

## SEMESTER 6

**Anglais 6** (ECTS:2)  
**Traitement du signal numérique** (ECTS:4)  
**Dynamique des Fluides** (ECTS:4)  
**Initiation aux éléments et différences finis 2** (ECTS:2)  
**Mécanique des poutres** (ECTS:4)  
**Projet disciplinaire en Mécanique** (ECTS:3)  
**Introduction à la science des matériaux** (ECTS:3)  
**Capteurs** (ECTS:3)  
**Stage** (ECTS:3)  
**UE libre** (ECTS:3)  
**Automatique** (ECTS:6)  
**Physique statistique** (ECTS:4)  
**Initiation aux différences et éléments finis 1** (ECTS:2)  
**Ondes acoustiques** (ECTS:2)  
**Spectroscopie atomique et moléculaire** (ECTS:6)