



Institut Francilien de Sciences Appliquées (IFSA)

FIELD Sciences, technologies, santé

Course suitable for

Initial Education

Continuing Education

Recognition of prior learning

• How to apply :

E-candidat et Etudes en France

• Course venue :

Champs-sur-Marne

• Calendar :

Placement in-company or in a research laboratory is proposed as an option

• Contacts :

- Coordinator of the degree program : ROUYER Florence (L1-L2-L3)

- Coordinator of the degree program : MALAVERGNE Valerie (L1-L2-L3)

- Academic coordinator : GRUBER Raymond

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For further details :

Information, Career guidance and Professional integration

Department

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BACHELOR PHYSICS AND CHEMISTRY

Chimie et applications



BACHELOR L3

ENTRY REQUIREMENTS

Third year accessible after 2 years of general training in the field of chemistry, E-applicant application.

ACQUIRED SKILLS

Acquiring sound general scientific training on theoretical, experimental and digital levels;

Ability to solve theoretical problems in the field of chemistry and its applications (materials, energy, environment);

Ability to roll out an experimental approach;

Ability to collect, manage and present results;

Ability to explain and present, orally and in writing, a project approach, knowledge brought into play, results obtained.

YOUR FUTURE CAREER

Most students pursue their studies with a Master's or enrol in an engineering school.

This Degree, in particular, offers access to Master's in Chemistry, in Risks and Environment and in Material Engineering and Sciences at UPEM.

It also leads to Master's in Chemistry in other universities and to generalist engineering schools.

BENEFITS OF THE PROGRAM

The Degree addresses the different fields of chemistry and offers students the opportunity to choose any specialization after. Students choose a subsidiary in physics, mechanics or 3EA (6 ECTS per semester), based on their personal professional project and training. The 3rd year of the Degree comprises, during the first semester, a TU introducing digital methods on computer and, during the second semester, a chemistry project TU where students, working in pairs, carry out a theoretical, digital and/or experimental personal study. In the second semester, depending on the project, students may choose an option focusing on materials, another based on sensors or in-company placement (or in a research laboratory).

• APPRENDRE • INVENTER • COMPRENDRE

STUDY PROGRAM

Semester 5

Mathematics - 5
Introduction to numerical methods
English - 5
Quantum mechanics
Chemical analysis methods 1
Chemical analysis methods 2
Electrochemistry
Organic chemistry 2
Les éléments ci-dessous sont à choix :

Analog signal processing
Analog electronics 2
Electromagnetism and electromagnetic waves
Introduction to thermal transfer
Introduction to convective and radiative transfer

Semester 6

English 6
Inorganic materials and minerals
Atomic and molecular spectroscopy
Orbital chemistry
Coordination chemistry
Chemistry course project
Les éléments ci-dessous sont à choix :

Introduction to material science
Sensors
Placement
Optional subject
Les éléments ci-dessous sont à choix :

Automation
Fluid dynamics
Introduction to finite elements and differences 1
Statistical physics
Acoustic waves