



Degree **Sciences, technologies, health**  
Specialisation **Chemistry**  
Course **Chemistry**

## Aims

The chemistry degree provides a course in the fields of chemistry and, for some students, a complementary course in biology. It provides students with highly in-depth training in the fields of material sciences and analytical sciences.

Access to the courses in the first year is via one of two general and multidisciplinary portals, “Mathematics-Computer Sciences-Physics-Chemistry” (MIPC), and biology-geology-chemistry (BGC), which take place over the first two terms of the degree course. This portal helps students, through a clearly interdisciplinary orientation, to acquire and reinforce the fundamental scientific skills and knowledge needed to go on to a specialisation from the second year.

## Admission

§ Baccalaureate, preferably scientific.

## Skills

- § Describing matter (at the microscopic and macroscopic scale)
- § Developing and formulating observations
- § Defining and applying forms of experimentation
- § Interpreting experimental results

## After the course

### Continuing studies

- § Vocational degrees (with preparation)
- § Engineering schools
- § Master’s degrees in the field of Sciences, Technologies, Health
- § MEEF (teaching) master’s degree

### Job openings

The course is part of a programme providing openings at the master’s and doctorate level in a wide range of sectors:

- § Industry: Engineering (R&D, Production, quality control, etc.)
- § Research and Teaching: Research engineers (CNRS, University), Lecturer–Researcher, teachers

## Contact

### School

+33 (0) 4 77 48 51 02

## Tuition fees

### Fees 2017/2018

Main registration: €184  
Preventive medicine: €5.10  
Social security: €217

# Courses

term 1 - Biology Geology Chemistry	Hours	ects
CU BIOLOGY 1: LEVEL OF ORGANISATION OF LIFE: CELLS AND ORGANISMS	58	6
CU GEOLOGY 1: EARTH & UNIVERSE, STRUCTURE OF INTERNAL & EXTERNAL ENVELOPES	48	6
CU CHEMISTRY 1: ATOMS AND THERMODYNAMICS	60	6
CU MATHEMATICAL TOOLS FOR THE EXPERIMENTAL SCIENCES 1	28	3
CU PHYSICS TOOLS FOR THE EXPERIMENTAL SCIENCES 1	30	3
CU LINGUISTIC TOOLS FOR THE EXPERIMENTAL SCIENCES 1	24	3
CU DIGITAL AND TEXTUAL TOOLS CU WITH 2 STUDY ELEMENTS:		3
CU Digital tools for the experimental sciences 1	20	2
CU Textual tools for the experimental sciences	5	1

term 1 - Maths, Engineering Sciences, Chemistry	Hours	ects
CU MATHEMATICS	60	6
CU I.T.	60	6
CU PHYSICS	60	6
CU CHEMISTRY	60	6
CU MATHEMATICAL TOOLS	30	3
CU METHODOLOGICAL AND SCIENTIFIC TOOLS		3
Expression and communication in languages	16	1
Textual tools	1	1
Digital tools and culture	14	1

term 3 - Chemistry	Hours	ects
CU GENERAL CHEMISTRY 1	30	3
CU ORGANIC CHEMISTRY	50	5
CU CONDUCTING EXPERIMENTS IN CHEMISTRY	30	3
CU MATHEMATICS 1	50	5
CU GENERAL ENGLISH B2	18	2
CU PERSONAL CAREER PROJECT	20	2
CHOICE OF SET OF SUBJECTS:		10
Chemistry - 3 mandatory CUs:		10
CU Chemometrics	30	3
CU Materials	20	2
CU Computer sciences	50	5
Chemistry-biology - 2 mandatory CUs:		10
CU genes: transmission and expression	50	5
CU Biomolecules: structures, reactions and energy aspects	50	5

term 5 - Chemistry	Hours	ects
CU HOMOGENOUS CINETICS, CINETICS ELECTROCHEMISTRY	40	4
CU THERMOCHEMISTRY 1	20	2
CU ORGANIC CHEMISTRY 1	30	3
CU MINERAL CHEMISTRY 1	30	3
CU MATERIALS 1	40	4
CU CHROMATOGRAPHY AND SPECTROSCOPY 1	30	3
CU CHROMATOGRAPHY AND SPECTROSCOPY 2	30	3
CU QUANTIC CHEMISTRY	30	3
CU ENGLISH AND SCIENTIFIC COMMUNICATIONS	24	3

term 2 - Biology Geology Chemistry	Hours	ects
CU BIOLOGY 2: NUCLEIC ACIDS, GENES, GENOMES AND BIODIVERSITY	60	6
CU GEOLOGY 2: INTERNAL AND EXTERNAL DYNAMICS OF THE EARTH, GEORESOURCES, GEOMATERIALS	48	6
CU CHEMISTRY 2: CRYSTALLOGRAPHY, KINETICS, PH-METER, COMPLEXOMETRY	60	6
CU MATHEMATICAL TOOLS FOR THE EXPERIMENTAL SCIENCES 2	22	3
CU PHYSICS TOOLS FOR THE EXPERIMENTAL SCIENCES 2	30	3
CU LINGUISTIC TOOLS FOR THE EXPERIMENTAL SCIENCES 2	24	2
CU DIGITAL TOOLS AND CULTURE FOR THE EXPERIMENTAL SCIENCES 2	4	2
CU GENERAL ENGLISH B2	18	2

term 2 - Maths I.T. Physics Chemistry	Hours	ects
CU MATHEMATICAL TOOLS II	50	5
CU I.T. TOOLS	52	5
CU PHYSICS II	60	6
CU CHEMISTRY II	60	6
CU PRACTICAL APPROACH IN PHYSICS/CHEMISTRY	60	6
CU GENERAL ENGLISH B2	18	2

term 4 - Chemistry	Hours	ects
CU GENERAL CHEMISTRY 2	50	5
CU MINERAL CHEMISTRY	40	4
CU MATHEMATICS 2	40	4
CU POLYMER MATERIALS	20	2
CU GENERAL ENGLISH B2	24	3
CU OPEN CREDITS	20	2
CHOICE OF SET OF SUBJECTS:		10
Chemistry - 3 mandatory CUs:		10
CU Chemistry-Biology Interface	30	3
CU Biosourced Materials	40	4
CU Recent developments in chemistry	30	3
Chemistry-biology - 2 mandatory CUs:		10
CU Metabolism, nutrition and growth in eukaryotes and prokaryotes	50	5
CU Some applications of biology	44	5

term 6 - Chemistry	Hours	ects
CU HETEROGENOUS CINETICS	20	2
CU THERMOCHEMISTRY 2	30	3
CU ORGANIC CHEMISTRY 2	40	4
CU MINERAL CHEMISTRY 2	40	4
CU MATERIALS 2	40	4
CU ANALYTICAL CHEMISTRY	20	2
CU ENGLISH AND SCIENTIFIC COMMUNICATIONS	24	3
CU OPEN CREDITS	20	2
CHOICE OF CHEMISTRY SUBJECTS - 1 CU FROM:		

**CAREER PREPARATION 1 - 1 CU FROM**

CU Preparation for continuing studies or employment	20	2
CU Preparation for research or study project	20	2
CU Introduction to primary-school teaching	20	2
CU ASTEP: Support in science and technology in primary school 1	25	2

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CU Chemistry and environment	28	3
CU Formulation	30	3
CU ATIC: acquisition and processing of data in chemistry	28	3

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**CAREER PREPARATION 1 - 1 CU FROM:**

CU internship in a company or laboratory		3
CU Preparation for research or study project		3
CU Internship in primary school	10	3
CU ASTEP: Support in science and technology in primary school 2		3

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