



Degree **Sciences, technologies, health**
Specialisation **Earth sciences**
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Aims

The course is based on providing the foundations of essential knowledge and skills in the field of the Geosciences and a naturalist culture through an approach on the ground. Its main aim is to give graduates access to a range of sectors in the earth sciences and environmental sciences.

The technical and scientific skills acquired and the approach in preparation for careers during the course enable the students who so wish to find work immediately at a qualified-technician level.

Access to the courses in the first year is via the general and multidisciplinary gateway course Biology-Geology-Chemistry, which takes place over the first two terms of the degree in Earth Sciences.

Through a clearly interdisciplinary orientation, this gateway course helps students acquire and reinforce the foundations of scientific skills and knowledge needed to go on to a specialisation from the second year.

Admission

§ Baccalaureate, preferably scientific.

Skills

- § Identifying and characterising geological objects on all spatial and temporal scales
- § Mobilising the basic concepts and advanced technologies in all earth science disciplines
- § Mastering the main equipment and techniques used to characterise geological formations on the ground and in the laboratory
- § To be able to work in a team and independently
- § To be able to find information, to analyse and summarise the information for further development, to conduct and present a project
- § To master the techniques of written and spoken expression in French and English (scientific language)

After the course

Continuing studies

- § Master's degrees in the field of Geosciences, Geology of the Environment, Geology for planning, for managing the environment, etc.
- § Engineering degrees (École Nationale Supérieure de Géologie in Nancy, Institut Géologique Albert de Lapparent, Polytech'Tours, etc.)
- § Master's degree in education and training, specialisation in earth and life sciences (earth and life sciences teacher in secondary schools),
- § Other civil service exams at degree level

Job openings

There are job openings in a range of sectors and professions:

- § Researcher, lecturer-researchers and research engineers (French and overseas universities, CNRS, IRD, Institut de Physique du Globe, BRGM, CEA, AREVA, etc.) in the field of geosciences in a wide sense for fundamental or applied research
- § Technician or engineer in town and country planning, geotechnical work, the exploration and use of natural resources (water, mines and quarries)
- § Member of scientific and technical staff in centres for scientific and technical culture and museums.
- § Primary school teacher or any other profession in the public sector with access through an entrance exam at degree level

Contacts

School

+33 (0) 4 77 48 51 02

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 AND UNIVERSE, STRUCTURE OF INTERNAL & EXTERNAL ENVELOPES	48 60	6 6
CU CHEMISTRY 1: ATOMS AND THERMODYNAMICS	28	3
CU MATHEMATICAL TOOLS FOR THE EXPERIMENTAL SCIENCES 1	30	3
CU PHYSICS TOOLS FOR THE EXPERIMENTAL SCIENCES 1	24	3
CU LINGUISTIC TOOLS FOR THE EXPERIMENTAL SCIENCES 1		3
CU DIGITAL AND TEXTUAL TOOLS WITH 2 STUDY ELEMENTS: CU Digital tools for the experimental sciences 1 CU Textual tools for the experimental sciences	20 5	2 1

term 3 - Earth sciences	Hours	ects
CU CRISTALLOGRAPHY – MINERALOGY	60	6
CU GEOPHYSICS: TOOLS, METHODS AND APPLICATIONS	28	3
CU PHYSICS OF ROCKS, RHEOLOGY, DEFORMATION	26	3
CU THERMODYNAMIC SYSTEMS AND STUDIES	40	4
CU ANALYSIS METHODS	12	2
CU PALEONTOLOGY	24	3
CU GEOLOGICAL CARTOGRAPHY - GEOLOGY OF FRANCE	50	5
CU GENERAL ENGLISH B2	18	2
UE PERSONAL CAREER PROJECT	20	2

term 5 - Earth sciences	Hours	ects
CU MAGMATIC PETROLOGY	56	7
CU MAGMATIC PETROLOGY	56	7
CU SEDIMENTARY PROCESSES, SEDIMENTOLOGY	56	7
CU RISKS AND REGIONAL RISK-MANAGEMENT IN MOUNTAIN AREAS	40	4
CU ENGLISH AND SCIENTIFIC COMMUNICATIONS	24	3
CAREER PREPARATION 1 - 1 CU FROM: CU Preparation for continuing studies or work employment	20	2
CU Introduction to primary-school teaching	20	2
CU ASTEP: Support in science and technology in primary school 1	25	2

Tuition fees

Fees 2017/2018

Main registration: €184

Preventive medicine: 5.10 €

Social security: 217 €

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 4 - Earth sciences	Hours	ects
CU ENDOGENOUS AND EXOGENOUS PETROGRAPHY	26	3
CU GEOCHEMISTRY	40	5
CU TECTONICS, GEODYNAMICS	30	3
CU EXTERNAL GEODYNAMICS	58	6
CU INTRODUCTION TO GIS AND DATABASES	16	2
CU GEOLOGY ON THE GROUND	60	6
CU OPEN CREDITS	20	2
CU GENERAL ENGLISH B2	24	3

term 6 - Earth sciences	Hours	ects
CU DIGITAL PROJECT - GEOLOGICAL MODELS	5	3
CU APPLIED GEOLOGY: GEOLOGICAL RESOURCES AND RISK	49	6
CU HISTORY OF THE EARTH	50	6
CU SCHOOLS ON THE GROUND	66	7
CU ENGLISH AND SCIENTIFIC COMMUNICATIONS	24	3
CU OPEN CREDITS	20	2
CAREER PREPARATION 2 (SUPPORTED PRACTICE) - 1 CU FROM: CU internship in a company or laboratory CU Internship in primary school CU ASTEP: Support in science and technology in primary school 2	10	3 3 3