

Geosciences for the energy system transition | GeoT

The **interdisciplinary thematic institutes** of the University of Strasbourg & CNRS & Inserm



Ensuring a decarbonized

Eost

Master

future through renewable

georesource research

of Sciences



Funded under the Excellence Initiative program &





New MSc Program Opening

Mention Earth and Planetary Sciences, Environment
Parcours *Geoscience for the energy system transition | GeoT*

Métiers To prepare students for career in the renewable geosciences

Objectifs

- To develop a holistic understanding of the diverse interconnections between geosciences research and industry
- To develop initiative and autonomy through the design and execution of multidisciplinary projects associated with research and development framework
- To be exposed to a large network of professionals, and be prepared for a wide range of postgraduate careers

Master program

1 st year	1 st semester	ECTS
	Lecture-based courses	21
	Bibliography in English	
	Data analyses, computing	
	Geology for energy transition	
	Geophysical prospecting	
	Hydrology	
	Geochronology and geothermometer	
	Sedimentary basin S1	
	Field and practical-based courses	9
	Field school - Reservoir in natural environments	
	Petrophysics and lab practices	
	Case study	
	2nd semester	ECTS
	Lecture-based courses	15
	Seismology and inverse theory	
	Seismic processing and interpretation	
	Geography information system	
	Sedimentary basin S2	
	Rocks physics	
	Field and practical-based courses	15
	Independent research project S2	
	Well logging and applied petrophysics	
	Field-based well-logging	
2nd year	3rd semester	ECTS
	Lecture-based courses	14
	Artificial intelligence	
	Controversy and the energy systems transition	
	Sub-surface storage	
	Monitoring: active and passive methods	
	Thermo-hydro-mechanical modelling	
	Geochemistry and renewable georesources	
	Field and practical-based courses	16
	Independent research project S3	
	Geothermal field school	
	Renewable georesources Seminar series	
	4th semester	
	Internship	3 ⁰

Skills

Students of the MSc GeoT will learn to:

- Observe, characterise, and quantify the physical properties of the subsurface using different geophysical tools, at different scales
- Process and analyze various digital signals and in a Geographic Information System
- Apprehend, design, and implement mathematical models simulating physical processes
- Identify, analyse, and apprehend questions of social perception of the georesource sector
- Design, execute, and defend scientific studies
- Write and communicate to an academic and professional audience

Admission requirement

1st year Undergraduate degree in Earth sciences, physics, or equivalent degree (180 ects)

2nd year master Geophysical degree in Earth sciences, physics, or an equivalent degree

How to apply

French and students who have already studied in France:

1st year apply through monmaster.gouv.fr

2nd year apply through ecandidat.unistra.fr

Foreign students

Both years apply through campusfrance.org



Key figures

10

Scholarships/year through
MOBIL'ITI funds

120

ECTS credits

40%

Research internship

10%

Field school



Our values

Scientific
expertise

All our courses guarantee excellence and meet the requirements of the academic and industrial world

Team
spirit

Projects and internships facilitate knowledge transfer and work experience

Relevance

Our courses encourage students to adopt a multidisciplinary approach to complex problem in geosciences

University campus

With more than 50,000 students, Strasbourg is recognised for its student life quality. The Esplanade campus is located in the heart of the city. This allows students to take full advantage of the attractions of the city and the many university services, library networks, university healthcare, and student accommodation.



The
Crous

Housing Catering
Healthcare Sport
Culture



Outings of all
kinds

Strasbourg is a hub for culture and arts



Strasbourg
by bike

A dynamic city accessible by foot, tram, and bike



The center
of Europe

With direct train connections to Paris, Basel, Frankfurt, and more in less than 3 hours

For more information

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