



MSc ENVIRONMENTAL SCIENCES PROGRAMME COASTAL GEOSCIENCES AND GEOPHYSICS

IDENTITY CARD

- > Domain : Sciences, Technologies and Health
- > Full time course
- > [Continuing Education](#)
- > [Master of Engineering](#)
- > [120 ECTS credits](#)
- > 4 semesters
- > Course partly taught in English
- > La Rochelle

100 % of graduates are employed

according to a study conducted 18 months after graduation

REGISTRATION

<https://www.univ-larochelle.fr/formation/admission-inscription-et-scolarite/candidatures-et-inscriptions/candidater-universite-la-rochelle/>

CONTACT

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OBJECTIVES

> Presentation

“ Do you have a background in sciences (mathematics, physics or earth sciences) and a sensitivity for the coast ?
The Master's degree in Environmental Sciences teaches you to understand complex research or social issues related to the integrated management of natural and coastal areas in particular.

The Coastal Geosciences and Geophysics (GGL) course provides you with fundamental theoretical and practical skills in terrestrial and marine geophysics, geodesy, marine geology and coastal oceanography.
You will be trained in the deployment of geophysical instruments on land and at sea, data acquisition, scientific calculation, modelling and digital data processing to provide answers to a problem in the coastal physical environment.

This course trains you to a rigorous reasoning, based on a state of current knowledge about the coastline. You will be able to carry out an interdisciplinary reflection, establish a diagnosis and propose and/or simulate possible evolutions in order to meet societal demands in the coastal domain.



Eric Chaumillon

✓ ADMISSION

> Your profile

You have a Bac+3, Bac+4 or equivalent (minimum 180 ECTS) : you must have completed a course in geosciences, physical sciences or applied mathematics.

> How to apply ?

In the 1st year of the Master's degree, the selection of candidates is made on the basis of their application documents.

How to apply to the [1st year of the Master's](#)

How to apply to the [2nd year of the Master's](#)

📄 PROGRAMME

● Mandatory ■ Course option

> Semester 1

> Coastal hydrodynamics & morphodynamics ●

- Coastal hydrodynamics & morphodynamics

Language used for teaching
English

Teaching time

49h 30min (18h lectures - 18h tutorials - 6h practical work - 7h 30min work in accompaniment)

6 ECTS credits

Course code

273-1-31

> Data analysis for geosciences 1 ●

- Python / Signal processing / Geographical Information System

Language used for teaching
English

Teaching time

68h 30min (16h 30min lectures - 19h 30min tutorials - 28h practical work - 4h 30min work in accompaniment)

6 ECTS credits

Course code

273-1-21

> Instrumentation in Geophysics 1 ●

- Marine geology and oceanography

Language used for teaching
French - English

Teaching time

60h (18h lectures - 18h tutorials - 12h practical work - 12h work in accompaniment)

6 ECTS credits

Course code

273-1-11

> Mineure : Ecologie et Gestion des espèces Marines Mobiles ■

- EGEMM 1

Language used for teaching	English
Teaching time	60h (37h 30min lectures - 6h tutorials - 3h practical work - 13h 30min work in accompaniment)
6 ECTS credits	
Course code	270-1-81

> Mineure : Environmental Data to information (edition) ■

- The environment in a computer : examples & projects

Language used for teaching	English
Teaching time	60h 30min (6h lectures - 44h practical work - 10h 30min work in accompaniment)
6 ECTS credits	
Course code	270-1-71

> Mineure : Géomatique ■

- Géomatique

Language used for teaching	French
Teaching time	55h 30min (6h lectures - 40h 30min tutorials - 9h work in accompaniment)
6 ECTS credits	
Course code	270-1-61

> Mineure : Gouvernance et concertation ■

- Gouvernance du développement durable

Language used for teaching	French
Teaching time	42h (24h lectures - 9h tutorials - 9h work in accompaniment)
4 ECTS credits	
Course code	270-1-92

- Participation citoyenne et transition écologique

Language used for teaching	French
Teaching time	18h (12h lectures - 6h work in accompaniment)
2 ECTS credits	
Course code	270-1-91

> Unités transversales ●

- Communication scientifique et technique

Language used for teaching	French
Teaching time	36h (24h practical work - 12h work in accompaniment)
4 ECTS credits	
Course code	270-1-02

- LV1 Anglais

Language used for teaching

French

Teaching time

24h (24h tutorials)

2 ECTS credits

Course code

270-1-01

> Semester 2

> Coastal sedimentology, geomorphology, stratigraphy and solid Earth deformation •

- Coastal sedimentology, geomorphology and stratigraphy

Language used for teaching

French - English

Teaching time

37h 30min (13h 30min lectures - 9h tutorials - 3h practical work - 12h work in accompaniment)

2 ECTS credits

Course code

273-2-31

- Earth's surface deformation & coastal impacts

Language used for teaching

English

Teaching time

27h (12h lectures - 7h 30min tutorials - 7h 30min work in accompaniment)
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2 ECTS credits

Course code

273-2-32

> Data analysis for geosciences 2 •

- Data analysis for geosciences 2

Language used for teaching

English

Teaching time

54h (13h 30min lectures - 19h 30min practical work - 21h work in accompaniment)

4 ECTS credits

Course code

273-2-21

> Instrumentation in geophysics 2 •

- Instrumentation in geophysics 2

Language used for teaching

French - English

Teaching time

64h 30min (28h 30min lectures - 3h tutorials - 12h practical work - 21h work in accompaniment)
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4 ECTS credits

Course code

273-2-11

> Stage •

- Stage (6 semaines)

Language used for teaching

French

6 ECTS credits

Course code

273-2-41-STAG

> Mineure : Ecologie et Gestion des espèces Marines Mobiles ■

● EGEMM 2

Language used for teaching
French

Teaching time
60h (33h lectures - 7h 30min tutorials - 6h practical work - 13h 30min work in accompaniment)

6 ECTS credits

Course code
270-2-81

> Mineure : Environmental Data to information (edition) ■

● From data to information

Language used for teaching
French

Teaching time
50h (19h 30min lectures - 20h practical work - 10h 30min work in accompaniment)

6 ECTS credits

Course code
270-2-71

> Mineure : Géomatique ■

● Méthodes d'analyse spatiale

Language used for teaching
French

Teaching time
22h 30min (4h 30min lectures - 12h tutorials - 6h work in accompaniment)

3 ECTS credits

Course code
270-2-62

● Télédétection et imagerie spatiale

Language used for teaching
French

Teaching time
28h 30min (4h 30min lectures - 18h tutorials - 6h work in accompaniment)

3 ECTS credits

Course code
270-2-61

> Mineure : Gouvernance et concertation ■

● Management des équipes et gestion de conflit

Language used for teaching
French

Teaching time
12h (6h lectures - 6h tutorials)

2 ECTS credits

Course code
270-2-91

● Méthodes de concertation

Language used for teaching
French

Teaching time
27h (18h lectures - 9h work in accompaniment)

2 ECTS credits

Course code
270-2-92

- Préparer, animer, rendre compte d'un évènement participatif

Language used for teaching

French

Teaching time

18h (6h lectures - 6h tutorials - 6h work in accompaniment)

2 ECTS credits

Course code

270-2-93

> Unités transversales •

- Changements globaux : enjeux environnementaux et sociétaux

Language used for teaching

French

Teaching time

33h (9h practical work - 24h work in accompaniment)

4 ECTS credits

Course code

270-2-02

- LV1 Anglais

Language used for teaching

French

Teaching time

24h (24h tutorials)

2 ECTS credits

Course code

270-2-01

> Semester 3

> Instrumentation in Geophysics 3 •

- Instrumentation in geophysics 3

Language used for teaching

French - English

Teaching time

64h 30min (22h 30min lectures - 18h tutorials - 18h practical work - 6h work in accompaniment)

6 ECTS credits

Course code

273-3-11

> Modelling in hydrodynamics & morphodynamics •

- Modelling in hydrodynamics & morphodynamics

Language used for teaching

French - English

Teaching time

55h 30min (22h 30min lectures - 7h 30min tutorials - 16h 30min practical work - 9h work in accompaniment)

6 ECTS credits

Course code

273-3-31

> Sea level variations, extremes & coastal risks •

- Sea level variations, extremes & coastal risks

Language used for teaching
English
Teaching time
64h 30min (34h 30min lectures - 19h 30min tutorials - 3h practical work - 7h 30min work in accompaniment)
6 ECTS credits
Course code
273-3-21

> Mineure : Ecologie et Gestion des espèces Marines Mobiles ■

- EGEMM 3

Language used for teaching
French
Teaching time
60h (31h 30min lectures - 9h tutorials - 6h practical work - 13h 30min work in accompaniment)
6 ECTS credits
Course code
270-3-81

> Mineure : Environmental Data to information (edition) ■

- Geospatial and web development

Language used for teaching
English
Teaching time
49h (19h 30min lectures - 10h practical work - 19h 30min work in accompaniment)
6 ECTS credits
Course code
270-3-71

> Mineure : Géomatique ■

- MNT

Language used for teaching
French
Teaching time
15h (4h 30min lectures - 10h 30min tutorials)
3 ECTS credits
Course code
270-3-61

- Teledetection avancée

Language used for teaching
French
Teaching time
19h 30min (4h 30min lectures - 15h tutorials)
3 ECTS credits
Course code
270-3-62

> Mineure : Gouvernance et concertation ■

- Management de projet de développement durable

Language used for teaching
French
Teaching time
48h (21h lectures - 27h work in accompaniment)
4 ECTS credits
Course code
270-3-91

- Retour d'expériences et évaluation de projet de développement durable

Language used for teaching	French
Teaching time	12h (9h lectures - 3h tutorials)
2 ECTS credits	
Course code	270-3-92

> Unités transversales •

- Droit de l'environnement et du littoral

Language used for teaching	French
Teaching time	16h 30min (16h 30min lectures)
2 ECTS credits	
Course code	270-3-02

- LV1 Anglais

Language used for teaching	French
Teaching time	24h (24h tutorials)
2 ECTS credits	
Course code	270-3-01

- Socio-écosystèmes

Language used for teaching	French
Teaching time	16h 30min (9h lectures - 3h tutorials - 4h 30min work in accompaniment)
2 ECTS credits	
Course code	270-3-03

> Semester 4

> Unités transversales •

- Stage (26 semaines)

Language used for teaching	French
30 ECTS credits	
Course code	273-4-01-STAG

AFTERWARDS

Information subject to change

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