GHENT UNIVERSITY

Course Specifications

From the academic year 2020-2021 up to and including the academic year

Remote Sensing for Marine Research and Innovation (C004338)

Due to Covid 19, the education and assessment methods may vary from the information displayed in the schedules and course details. Any changes will be communicated on Ufora.

Course size *(nominal values; actual values may depend on programme)*

Credits 6.0 **Study time 150 h** **Contact hrs** 39.0h

Course offerings in academic year 2021-2022

A (semester 1) English Gent

Lecturers in academic year 2021-2022

Mocquet, Christophe	NICE04	lecturer-in-charge
Arias, Manuel	NICE04	co-lecturer
Bretagnon, Marine	NICE04	co-lecturer
Mangin, Antoine	NICE04	co-lecturer
Pierotti, Stéphane	NICE04	co-lecturer

Offered in the following programmes in 2021-2022	**crdts**	**offering**
International Master of Science in Marine Biological Resources	6	A

Teaching languages

English

Keywords

Remote sensing, satellite, drones, sensors, sentinel, Thales, Airbus, ESA, CNES, ACRI, Copernicus, Mercator, ocean color, research, management, innovation

Position of the course

Contents

This course explores how remote sensing can be used to improve scientific knowledge and ocean management and to develop socio economic applications such as in fisheries, aquaculture and spatial planning

Initial competences

Marine ecology and oceanography, background in life science (primary production, phytoplankton).

Final competences

1 Basics in remote sensing: how does it work, types of material used (satellites, drones...).
2 Type of information collected (rough, treatment, AI, image...) and how to collect them.
3 Copernicus, Mercator and associated platforms.
4 Visit of the Thales Alenia Space site (Cannes).
5 Ocean applications: focus on ocean colour
- Research: studying the sea (temperature, primary production, ecosystems, global change...)
- Management: monitoring water quality, pollution
- Innovation: case studies for fisheries and aquaculture

Conditions for credit contract

Access to this course unit via a credit contract is determined after successful competences assessment

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Group work, Seminar, Excursion, Lecture, Integration seminar

Learning materials and price

References

Course content-related study coaching

Assessment moments

end-of-term and continuous assessment

Examination methods in case of periodic assessment during the first examination period

Written examination with multiple choice questions, Written examination with open questions

Examination methods in case of periodic assessment during the second examination period

Written examination

Examination methods in case of permanent assessment

Assignment

Possibilities of retake in case of permanent assessment

examination during the second examination period is possible in modified form

Extra information on the examination methods

- Written examination: open questions, written examination: MCQ, online activities

- Examination methods in case of periodic evaluation during the second examination period:
- Written examination with essay

Calculation of the examination mark

- 50% continuous assessment,
- 50% terminal assessment