

Numerical Ecology: Multivariate Methods for Marine Community Ecology (C004305)

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 4.0 **Study time 100 h** **Contact hrs** 32.0h

Course offerings in academic year 2021-2022

A (semester 1) English Gent

Lecturers in academic year 2021-2022

Gauthier, Olivier BREST02 lecturer-in-charge
Boyé, Aurélien BREST02 co-lecturer

Offered in the following programmes in 2021-2022

	crdts	offering
International Master of Science in Marine Biological Resources	4	A

Teaching languages

English

Keywords

Nature of multidimensional data; Matrix algebra; Similarities, dissimilarities and distances; Clustering; Ordination; Canonical analysis; Spatial and temporal modelling.

Position of the course

Contents

Nature of multidimensional data; Matrix algebra; Similarities, dissimilarities and distances; Clustering; Ordination; Canonical analysis; Spatial and temporal modelling.

Initial competences

QMMS, Marine ecology

Final competences

- 1 Students will understand the theoretical foundation of advanced methods for the study of community change over space and time.
- 2 They will be able to carry out these analysis using state of the art methods and tools using the R language.
- 3 They will also acquire the knowledge necessary to properly design experiments to study beta diversity in space and time.

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

Demonstration, Online discussion group, Group work, Guided self-study, Seminar, Lecture, Project, Seminar: practical pc room classes

Learning materials and price

References

Borcard, D., F. Gillet & P. Legendre. 2018. Numerical Ecology with R.

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

Oral examination

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

Oral examination

Examination methods in case of permanent assessment

Report

Possibilities of retake in case of permanent assessment

examination during the second examination period is possible

Calculation of the examination mark