

Biodiversity of Aquatic Food Webs: from Algae to Marine Mammals (C004081)

Due to Covid 19, the education and evaluation 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 3.0 Study time 90 h Contact hrs 30.0 h

Course offerings and teaching methods in academic year 2020-2021

A (semester 1)	English	Gent	lecture	30.0 h
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Lecturers in academic year 2020-2021

De Troch, Marleen	WE11	lecturer-in-charge
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Offered in the following programmes in 2020-2021

	crdts	offering
Master of Science in Teaching in Science and Technology (main subject Biology)	3	A
Master of Science in Biology	3	A
Exchange Programme in Biology (master's level)	3	A

Teaching languages

English

Keywords

Structural biodiversity, functional biodiversity, calculating biodiversity, primary production, plankton, benthos, marine mammals

Position of the course

Advanced course to unravel the biodiversity of aquatic higher organisms operating in crucial units of food webs. This course aims to give insight in structural and functional aspects of biodiversity. Based on knowledge of marine and lacustrine organisms and their environment ('Marine and Lacustrine Biology').

Contents

Starting from an overall aquatic food web, the course will give:
a general approach of actual research topics as

- structural biodiversity (spatial levels) and its calculation
- functional biodiversity with a more detailed approach of key players in aquatic food webs:
 - primary producers: marine photosynthetic organisms (macroalgae, mangroves, seagrasses and scleractinian corals), ecological roles and ecophysiology
 - zooplankton
 - benthos
 - top predators and marine mammals in terms of their function, their organization and their morphological adaptations.

Initial competences

Basic knowledge of the biology of aquatic organisms (both plants and animals)

Final competences

- 1 To know how to calculate and interpret biodiversity.
- 2 To get knowledge on the morphological adaptations of aquatic organisms and to understand their functioning in order to maintain aquatic biodiversity in their environments.

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

Lecture

Extra information on the teaching methods

due to COVID19 on campus lectures can be replaced by online alternatives when required.

Learning materials and price

all course material is online available on Ufora

References

Belgrano, B., Scharler, U.M., Dunne, J. & Ulanowicz, R.E., 2005. Aquatic Food Webs. An ecosystem approach. Oxford University Press, 262 p.
Magurran, A.E., 2004. Measuring biological diversity. Blackwell Publishing, 256 p.
Dring Matthew J. Biology of marine plants.

Course content-related study coaching

Lectures are always followed by short interactive discussion sessions

Evaluation methods

end-of-term evaluation

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

Oral examination

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

Oral examination

Examination methods in case of permanent evaluation

Possibilities of retake in case of permanent evaluation

not applicable

Extra information on the examination methods

Periodic evaluation: regular feed-back opportunities allowing to monitor progress in achieving the final terms of the course.

Calculation of the examination mark

oral exam: 100%