GHENT UNIVERSITY

Course Specifications

Valid as from the academic year 2024-2025

Marine Conservation Biology (C003894)

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

Credits 6.0 **Study time 150 h**

Course offerings in academic year 2026-2027

A (semester 2) English Gent

Lecturers in academic year 2026-2027

Bianchelli, Silvia	ANCONA01	lecturer-in-charge
Cerrano, Carlo	ANCONA01	co-lecturer
Danovaro, Roberto	ANCONA01	co-lecturer

Offered in the following programmes in 2026-2027	crdts	offering
International Master of Science in Marine Biological Resources	6	A

Teaching languages

English

Keywords

Conservation Biology, Marine Biodiversity, Sustainability, Ecosystem based management.

Position of the course

The course aims at training students on key concepts of ecology and policy relevant to marine conservation issues at the population to ecosystems level, principles and approaches for marine conservation from both the biology and policy perspectives, strategies and tools for the sustainable use of marine biological resources, including emerging approaches such as ecosystem based management and ocean planning. The student will acquire the following skills: ability to identify strategies and tools for the conservation and management of marine biodiversity, propose actions and measures for the reduction and mitigation of human pressure on marine ecosystems and for the sustainable use of marine resources. The student will also acquire skills useful for interfacing with agencies and institutional bodies involved in the management of the marine environment and its resources.

Contents

History of marine conservation. Marine biodiversity. Threats to marine biodiversity: loss of biodiversity, vulnerability, extinction, biological invasions. Endangered, vulnerable, rare, endemic and priority species. Long-lived marine animal conservation. Marine biodiversity and ecosystem functioning relationships. Consequences of species loss on the provisioning of ecosystem's goods and services for human wellbeing. Ecosystem based management for sustainable use of marine resources. Political, legal and ethical issues of concern in marine conservation biology.

Initial competences

Basic knowledge of Botany, Zoology, Ecology and Marine Biology.

Final competences

1 Knowledge of key ecological concepts relevant to marine conservation issues.
2 Knowledge of threatened and vulnerable marine species and habitats.
3 Knowledge of the consequences of biodiversity loss on the provisioning of marine ecosystems' goods and services.
4 Knowledge of the strategies and tools for the sustainable management of marine resources.

5 Knowledge of the main international initiatives for marine conservation.

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

Seminar, Lecture

Extra information on the teaching methods

Theoretical lectures, analysis of case studies, seminars

Study material

None

References

All the material presented during the course (pdf files of the PowerPoint slides and scientific articles) will be made available to the students.
Suggested reading:
Elliott A. Norse and Larry B. Crowder (2005) Marine Conservation Biology. The Science of Maintaining the Sea's Biodiversity. Island Press, Washington.

Course content-related study coaching

Assessment moments

end-of-term assessment

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

Written assessment with multiple-choice questions

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

Written assessment with multiple-choice questions

Examination methods in case of permanent assessment

Possibilities of retake in case of permanent assessment

not applicable

Extra information on the examination methods

End-of-term evaluation consists of a multiple-choice test (4 questions) and six open questions-responses about key concepts of ecology and policy relevant to marine conservation issues, threatened and vulnerable marine species and habitats, consequences of biodiversity loss on the provisioning of marine ecosystems' goods and services, strategies and tools for the sustainable management of marine resources. The open questions will allow assessing the student's ability to communicate clearly the information gained during the course.

Calculation of the examination mark

Each question of the multiple-choice test can have one or more right responses and is worth 3 points if all the responses are right. The open responses are worth 3 points. The final mark is calculated on the basis of the sum of the score assigned to each individual question. The highest score is 30 cum laude.