GHENT UNIVERSITY

Course Specifications

Valid as from the academic year 2024-2025

Conservation and Management (C004242)

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

Credits 6.0 **Study time 168 h**

Course offerings in academic year 2026-2027

A (semester 2) English Gent

Lecturers in academic year 2026-2027

Castro, Margarida FAR001 lecturer-in-charge

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, sustainability, governance, management, living resources

Position of the course

- The course focuses on the major issues and problems related to management and conservation of living resources. A multidisciplinary approach will be used to address
  the different issues, based on lectures, seminars and reading and discussion of key papers.
- Familiarity with key issues and problems facing management and conservation of marine resources. Ability to think critically and evaluate different approaches and
  solutions to problems.
- This course is part of the fisheries specialization track of the Master of Science in Aquaculture and Fisheries.

Contents

The syllabus of this course is reviewed every year, depending on the evolution of the situation of marine resources, management and conservation solutions:
Historical evolution of fisheries management. Changing objectives and methodologies. Stock assessment and fisheries management: tools available and the decision-making process. Available tools. Impacts of fishing on the genetic and population structure. Fishing and evolutionary pressures. Changes in ecological balance. Fisheries and marine biodiversity. Marine Protected areas in the context of fisheries management. Artificial Reefs. Restocking and stock enhancement. Conservation of marine exploited resources in the face of ongoing climate change. Ecosystem-based management (EBM). Balanced harvesting and culling. Integrated coastal management (ICM). Illegal, Unreported and Unregulated (IUU) Fishing. Ethical issues in fisheries. Conciliating exploitation and conservation of marine resources; elements for a sustained and responsible fishing activity.
The course is organized in 4 units:
The first unit (THE BASIS OF MANAGEMENT AND CONSERVATION OF EXPLOITED MARINE RESOURCES) includes themes 1 to 2 and its objective is to expose the students to technical and historical aspects of the management of marine living resources.
The second unit (FISHERIES AND ECOSYSTEMS) covers themes 3 to 5 and is dedicated to the impact of fisheries in ecosystems at different levels: individuals,

populations and ecosystems.
The third unit (MITIGATION MEASURES AND MANAGEMENT SOLUTIONS), includes themes 6 to 12 and explores the solutions proposed to mitigate and reverse the negative effects of resource exploitation.
The fourth unit (SOCIO-POLITICAL ISSUES IN FISHERIES MANAGEMENT AND CONSERVATION) includes the remaining themes, 13 to 15 and explores socioeconomic and ethical aspects of resource exploitation.

Initial competences

Basic concepts in Ecology and Population Dynamics.

Final competences

1 Understanding the problems associated with the exploitation, management and conservation of living marine resources.
2 Develop a capacity to critically evaluate solutions presently available for management and conservation.
3 Understanding of the importance of a multidisciplinary approach to management and conservation, taking into consideration biological, social, economic, historical and ethical aspects.

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

Each class includes a presentation and an associated study case, for one and half hours. Part of the time is intentionally allocated to debating ideas and students are encouraged to share experiences.
A list of readings (one per class) and in some cases lectures available on-line are used as a complement to the class debate.

Study material

None

References

To be defined in each year, consisting of scientific articles and talks available online.

Course content-related study coaching

There is no individual coaching foreseen for students having problems, although there will be regular office hours for students to meet the professor on a one to one basis.

Assessment moments

end-of-term assessment

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

Written assessment

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

Written assessment

Examination methods in case of permanent assessment

Possibilities of retake in case of permanent assessment

not applicable

Extra information on the examination methods

The evaluation of the course is done in a final exam, composed of several questions of extended answers, about the themes discussed in the class and requiring the in-depth reading of the list of papers that constitute the bibliography of the course.

Calculation of the examination mark

Written exam (100%)