GHENT UNIVERSITY

Course Specifications

From the academic year 2021-2022 up to and including the academic year

Marine Ecosystem Restoration: an Introduction (C004388)

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** 48.0h

Course offerings in academic year 2021-2022

A (semester 1) English Gent

Lecturers in academic year 2021-2022

Danovaro, Roberto	ANCONA01	lecturer-in-charge
Cerrano, Carlo	ANCONA01	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

Position of the course

The field of ecological restoration is a complex interdisciplinary field that is becoming more important in a world that depends on increasingly degraded ecosystems to support growing human societies. Ongoing human- and climate-induced disturbances create the need for professionals that can restore ecological services of marine degraded ecosystems. Restoration of marine degraded ecosystems can benefit society by improving biodiversity conservation, improving human livelihoods, empowering local people, and improving ecosystem productivity. This course is intended to provide students the principles and strategies of assisting in the recovery of damaged and degraded marine habitats and ecosystems through theoretical lectures and case study analysis.

Contents

Introduction to ecological restoration: historical development, role in stewardship and future needs. Key ecological concepts for planning marine restoration actions, ecological succession, establishment of the reference conditions, restoration process and steps in the process; understanding and overcoming limitations; assessment of the ecological benefits of restoration activities, including the role of passive restoration; analysis of case studies of restoration initiatves of degraded marine habitas and ecosystems (both successful and unsuccessful stories).

Initial competences

knowledge in marine biology and ecology.

Final competences

1 Knowledge on the role of restoration for the conservation and sustainable stewardship of marine natural resources.
2 Knowledge on the main ecological principles underlying the successful restoration of marine habitats and ecosystems including concepts of disturbance and succession.
3 Knowledge on ecological and management principles and on appropriate methods and tools for designing and conducting restoration projects.
4 Knowledge on the main criteria for establishing the success of restoration projects.

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

Lectures, seminars and case study analyses.

Learning materials and price

Notes taken during the lecturers and power point presentations handed out by the lecturers. State of the art articles, reports, books shared by the lecturer.

References

Course content-related study coaching

No course coaching

Assessment moments

end-of-term 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 with multiple choice questions, Written examination with open questions

Examination methods in case of permanent assessment

Possibilities of retake in case of permanent assessment

not applicable

Extra information on the examination methods

The final examination consists of a multiple-choice test and open questions-response. The students must demonstrate that they have acquired the knowledge on the underlying principles, approaches and tools which can be used for the restoration of degraded marine habitats and ecosystems.

Calculation of the examination mark

The exam will be considered passed when the final mark exceeds or is equal to 18. Students may receive up to 30 marks cum laude.