GHENT UNIVERSITY

Course Specifications

Valid as from the academic year 2024-2025

Blue Science and Technology Summer Training (I800003)

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

Credits 3.0 **Study time 75 h**

Course offerings in academic year 2025-2026

null

Lecturers in academic year 2025-2026

Asselman, Jana	LA22	lecturer-in-charge
Janssen, Colin	LA22	co-lecturer

Offered in the following programmes in 2025-2026	**crdts**	**offering**
null		

Teaching languages

English

Keywords

Blue Economy, marine and maritime sciences, ocean and human health, blue biotechnology, sustainability assessment, governance and policy, innovation, entrepreneurship

Position of the course

Within the domain of marine sciences, there are several Master's programs existing within Ghent University and other universities. However, on the basis of regular analyzes of the European offer of Master courses, via the Marine Training portal (https://www.marinetraining.eu/, coordinated by Ghent University), it appears that within the majority of those courses there is currently no component specifically aimed at the Blue Economy.

Contents

- Sustainability assessment including ecosystem services, risk assessment and life cycle assessment
- Oceans and human health both physical and mental health
- legal framework on multi-use at sea, law of the sea, Nayoga protocol as well as the Marine Strategy Framework Directive
- Blue Biotechnology (incl data mining, prospecting bioactive compounds, industrial applications)
- sustainable food production at sea from sea to fork (incl certification, upscaling of business, etc)
- Social innovation and communication skills
- Nature based solutions for coastal protection
- Physical modelling in coastal and offshore engineering

Initial competences

Knowledge of marine or maritime related sciences and technology

Final competences

1 The objective is to offer an add-on learning opportunity for participants with a mainly scientific background to be prepared for the rapidly evolving demands of the blue economy sector. During the program students will:
- Obtain insight in upscaling of scientific knowledge and expertise to the business world and market and the commercial

2 - Gain knowledge about the social and sustainable challenges faced by companies and governments in blue economy sectors.

3 - Acquire advanced scientific problem-solving skills, design multidisciplinary approaches and collect, analyse and interpret data.
4 - Learn to work, synthesise, report and argue in a group assignment that requires participants to balance economic, social and economic impacts of human activities at sea.
5 - Be competent to further develop a network in an international and multidisciplinary context and apply it in an integrated problem-solving character.
6 - Be able to communicate with peers, with various stakeholders in blue economy field, and with a general public concerning scientific concepts and research. Among others via the oral presentation of the group assignment.

Conditions for credit contract

This course unit cannot be taken via a credit contract

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Group work, Excursion, Lecture, Practical, Peer teaching

Extra information on the teaching methods

Group work: develop multi-use activities at sea to reduce the environmental impact of human activities overall

Study material

None

References

Course content-related study coaching

students can ask questions during or after lecture
group work is guided

Assessment moments

end-of-term assessment

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

Participation, Assignment

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

Examination methods in case of permanent assessment

Possibilities of retake in case of permanent assessment

not applicable

Extra information on the examination methods

Assessment of the groupwork through presentation in front of a multidisciplinary jury consisting of representatives from academia, industry as well as governance.

Calculation of the examination mark

The jury will be asked to evaluate the group work on the basis of:
Assignment: 75%
Continuous evaluation 15%
The student must participate for the full duration of the course and in all activities in order to pass.
The assessment and establishment of the final scoring is done via an evaluation sheet developed together with the UGent jury members.