

Spatial Distribution of Genetic Biodiversity (C004240)

Course size *(nominal values; actual values may depend on programme)*
Credits 3.0 **Study time 75 h** **Contact hrs** 30.0h

Course offerings in academic year 2022-2023

A (semester 2) English Gent

Lecturers in academic year 2022-2023

Machado Schiaffino, Gonzalo OVIED001 lecturer-in-charge

Offered in the following programmes in 2022-2023

| | crdts | offering |
|--|--------------|-----------------|
| International Master of Science in Marine Biological Resources | 3 | A |

Teaching languages

English

Keywords

biodiversity, distribution, populations, genetics

Position of the course

Contents

- Theory: Population genetic structure and gene flow. Population differentiation, F analysis. Indicators of population mixture. Wahlund effect. Distribution of genetic variation within a species and its determining factors.
- Populations and stocks. Molecular applications to the management of exploited populations. Identification of biological and management units. Estimates of effective population size through genetic variation. Inference of bottlenecks. Genetic signatures and examples of marine metapopulations.
- Practical work: Research-based of a case study comprising field, laboratory, analytical work using modern software. Critical analysis of a relevant quality publication; analysis of a real dataset with state of the art software.

Initial competences

Graduate level in sciences. Basic knowledge in molecular biology is recommended.

Final competences

- 1 Students should be acquainted with state of the art methodologies currently applied in the analysis of spatial structure of marine populations.
- 2 They should also be able to design complete protocols for analysis of genetic biodiversity, population and stock structure.

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

Learning materials and price

References

Course content-related study coaching

Assessment moments

continuous assessment

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

Report, Peer assessment

Possibilities of retake in case of permanent assessment

examination during the second examination period is possible

Extra information on the examination methods

Presentation of the results of the case study supported by visual material. Team working is encouraged and peer evaluation will represent 20% final score.

Calculation of the examination mark