GHENT UNIVERSITY

Course Specifications

From the academic year 2020-2021 up to and including the academic year

Applied Immunology (C004248)

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 3.0 **Study time 84 h** **Contact hrs** 27.0h

Course offerings in academic year 2021-2022

A (semester 1) English Gent

Lecturers in academic year 2021-2022

Power, Deborah FAR001 lecturer-in-charge

Offered in the following programmes in 2021-2022	**crdts**	**offering**
International Master of Science in Marine Biological Resources	3	A

Teaching languages

English

Keywords

Immune system & evolution, Diseases and vaccination, Technologies arising from immunology, Immunoassays, Strategies for developing and applying immunoassays

Position of the course

Development of a basic theoretical framework about immunology and applied tools.

Contents

The course gives a general overview of the immune system and its evolution. The main focus will be the technologies arising from immunology and their applications. New innovations in applied immunology and advanced training in designing, implementing and evaluating Immunological techniques will be covered. The course is organized between theory and theoretical practicum.

Initial competences

- Basic working knowledge of immunology and immune system evolution.
- Understanding of key techniques developed using immunology and their applications.
- The relevance of applied immunology for the marine biosphere and sustainability.
- Develop basic skills in literature review, writing and public presentation.

Final competences

1 Knowledge and understanding of basic immunology drawing on previous knowledge in immunology and also cell biology and biochemistry.
2 Biotechnological applications derived from immunology and their technological and biomedical applications.
3 Build a knowledge base in applied immunology by searching literature and e-resources and apply it to critically resolve problems.
4 Examine the strategies and approaches used to generate “product pipeline” going from basic immunology to a biotechnological product.
5 Identify problems in applied immunology and define strategies for their resolution.

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

Guided self-study, Seminar, Lecture, Self-reliant study activities, Seminar: coached exercises

Learning materials and price

- Slides from the lectures are provided to students through the tutorial platform.
- The library has rich resources available through the web of knowledge.
- Recommended textbooks are available in the library and on-line.

References

Kuby Immunology, T.J. Kindt, R.A. Goldsby, B.A. Osborne, 6th ed. WH Freeman, New York, USA (ISBN-10: 1-4292-0211-4ISBN-10: 1-4292-0211-4) Technological applications of immunochemicals. Biotechnology by open learning, University of Greenwich. ISBN 0 7506 0508 1 Comprehensive Biotechnology. 2011. Second edition. Vol 3. Academic Press. Elsevier.
Web of Knowledge

Course content-related study coaching

Tutorials are provided as requested for coaching or problem resolution. 2h per week are set aside for resolution of problems students may have.

Assessment moments

end-of-term and continuous assessment

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

Written examination

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

Written examination

Examination methods in case of permanent assessment

Assignment

Possibilities of retake in case of permanent assessment

examination during the second examination period is possible

Extra information on the examination methods

A combination of continuous and end-of-term evaluation is used.
Continuous evaluation consists of the preparation of a monograph on a theme of the students choice and a research seminar about the monograph (40% of final mark).
An end of discipline exam is provided and students are required to answer 2 out of 5 essay questions (60% of final mark).

Calculation of the examination mark

- The final mark is out of 20.
- Minimum mark to pass is 10/20.

The final mark is composed of the sum of the mark for the monograph and seminar (40%) and the final exam mark (60%).