

Immunology (I002622)

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

Credits 5.0 **Study time 150 h**

Course offerings in academic year 2023-2024

A (semester 2) English Gent

Lecturers in academic year 2023-2024

Vanrompay, Daisy LA22 lecturer-in-charge

Offered in the following programmes in 2023-2024

	crdts	offering
Master of Science in Bioscience Engineering: Cell and Gene Biotechnology	5	A
Exchange Programme in Bioscience Engineering: Cell and Gene Biotechnology (master's level)	5	A

Teaching languages

English

Keywords

Immunobiology, innate and adaptive immunity, inflammation, humoral and cellular immunity, infectious diseases

Position of the course

This course aims to give students an overview of the main aspects of immunology and its related techniques and applications

Contents

Antigens, innate immune cells, inflammation, the major histocompatibility complex, antigen presentation, tissues of the immune system, T cell mediated immunity, Immunoglobulins, antibody responses, cytokines, the complement system, pathogen recognition receptors and immune signaling pathways

Initial competences

Immunology builds on certain learning outcomes of course units Microbiology, Cell Biology; or the learning outcomes have been achieved differently.

Final competences

- 1 The student possesses a broad knowledge, at an advanced level, of immunobiology in health and disease.
- 2 The student gains a broad knowledge of ongoing immune mechanisms in health and disease
- 3 The student understands the principle of a variety of immunological laboratory techniques and is able to use these insights for designing and producing immunological diagnostics.
- 4 the student is able to interact with peers, immunologists and other persons active in the biomedical sector as well as with the general public, concerning personal research, immunological ideas and research proposals, both written and orally

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

Lecture, Practical, Independent work

Extra information on the teaching methods

Theory: lecture using power point presentations which will be made available via the electronic

learning platform and also movies on immune mechanisms.

Practicals: immunological assays to be performed by the student in the laboratory. Independent work.

Learning materials and price

Course book (about 20 euro)

References

1) Immunobiology. Kenneth Murphy and Casey Weaver. 9th Edition, (2017). Garland Science Publishing. Book is also known as Janeway's Immunobiology.

2) Abul K. Abbas & Andrew H. Lichtman, S. Pillai (2017). Cellular and Molecular Immunology. 9th edition. Elsevier Science/Saunders, Philadelphia.

Course content-related study coaching

Teacher and assistant available for student counselling

Assessment moments

end-of-term and continuous assessment

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

Oral assessment, Written assessment, Assignment

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

Oral assessment, Written assessment

Examination methods in case of permanent assessment

Participation, Assignment

Possibilities of retake in case of permanent assessment

examination during the second examination period is possible

Extra information on the examination methods

Lectures: written examination, oral assessment

Practical: written assignment

Calculation of the examination mark

Lectures: 90% and practical 10%

Students who eschew period aligned and/or non-period aligned evaluations for this course unit may be failed by the examiner.