Immunology (O000050)

Valid as from the academic year 2016-2017

Course Specifications

Course size

<table>
<thead>
<tr>
<th>Credits</th>
<th>Study time</th>
<th>Contact hrs</th>
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<tbody>
<tr>
<td>5.0</td>
<td>150 h</td>
<td>45.0 h</td>
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Course offerings and teaching methods in academic year 2016-2017

A (semester 1)
- Seminar: 5.0 h
- Practicum: 17.5 h
- Lecture: 22.5 h

Lecturers in academic year 2016-2017

Magez, Stefan - lecturer-in-charge
Radwanska, Magdalena - co-lecturer

Offered in the following programmes in 2016-2017

Bachelor of Science in Molecular Biotechnology
- Crdts: 5
- Offering: A

Teaching languages

English

Keywords

Immunology, Inflammation, Infection

Position of the course

This course provides basic knowledge of immune defense mechanisms on a cellular and molecular level. Insight in these mechanisms will then form the basis for an introduction to immunity dysfunction and the resulting immune system-related pathologies.

Contents

1. What is immune defense? What are the cells and molecules of the immune system?
2. Innate immunity
3. Adaptive immunity
4. Integration of both immune compartments.
5. Immunological/inflammatory pathologies.
6. Medical and technological applications (vaccination, diagnosis, monoclonal antibodies)
7. The practical use of Immunology (laboratory practicals): ELISA, FACS, Western Blot.

Initial competences

No prior immunology knowledge is required; a basis in molecular biology and cell biology is required. Students should have knowledge of The Living World 1, The Living World 2, The Living World 3 and Molecular Biological Analysis.

Final competences

A solid understanding of the basis mechanisms in the mammalian immune system is acquired; the student can read and understand the immunological literature.

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

(Approved)
Lecture, practicum, seminar

Learning materials and price

References
Understanding Immunology 3rd edition, Peter Woods, Printice Hall.
Immunobiology 8th edition, K. Murphy, P. Travers, M. Walport, Garland Science

Course content-related study coaching

Evaluation methods
end-of-term evaluation and continuous assessment

Examination methods in case of periodic evaluation during the first examination period
Oral examination

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

Examination methods in case of permanent evaluation
Participation

Possibilities of retake in case of permanent evaluation
examination during the second examination period is possible in modified form

Calculation of the examination mark
Oral examination with open questions (written preparation time) 90%
Participation 10%
Participation in the practical courses is an obligatory requirement to pass this course

(Approved)