Subject: Immunology (FOG-UA230; FOG-MA240)

Academic year / semester: 2025/2026. I.

Type of course: lecture

Weekly nr. of hours: 1

Credits: 1

Performance assessment: colloquium

Responsible Institute: SZTE SZAOK-TTIK, Department of Immunology

Subject responsible: Krisztina Buzás PhD, DSc

Course prerequisites: Biology for Dentistry Students I-II

Objective of the course:

To familiarize students with the basic immunological concepts, mechanisms and the theoretical background of the oral immunological pathologies.

Date Monday 12:00	**Lecture**	**Professor**
1. 2025.09.08.	The structure and working principle of the immune system. Lymphoid tissues, central and peripheral lymphoid organs.	Dr Krisztina Buzás
2. 2025.09.15.	Main characteristics, cellular and humoral elements of innate immunity.	Dr Roberta Fajka-Boja
3. 2025.09.22.	Antigen receptor molecules of the adaptive immune system. The structure and polymorphism of MHC molecules.	Dr Ágnes Czibula
4. 2025.09.29.	Antigen presentation. Development of T and B cells.	Dr Ágnes Czibula

5. 2025.10.06.	T-cell mediated immunity. T cell types and their functions.	Dr Ágnes Czibula
6. 2025.10.13.	Humoral immune response. B cells and antibodies.	Dr Gabriella Greskovics-Dobra
7. 2025.10.20.	Immunological memory. Vaccination.	Dr Gabriella Greskovics-Dobra
2025. 10. 21. 18:00 - 20:00	**1. MTO (mandatory)** Place: Orvosi Fizikai és Orvosi Informatikai Intézet, Korányi fasor 9. Rooms: 12., 22., 24.	More information on the Coospace Forum!
8. 2025.10.27	Immunological aspects of oral defence mechanisms. Immune system of oral mucosa, and characteristics of its immune response. Prenatal immunology.	Dr Ágnes Czibula Dr Edina Gyukity-Sebestyén
9. 2025.11.03.	Inflammation and acute phase response. Inflammation in oral cavity.	Dr Roberta Fajka-Boja
10. 2025.11.10.	Antimicrobial immune responses.	Dr Roberta Fajka-Boja
11. 2025.11.17.	Types and characteristics of hypersensitivity reactions. Allergic reactions.	Dr Judit Danis
12. 2025.11.24.	Mechanism of autoimmunity. Autoimmune diseases of the oral cavity.	Dr Ágnes Czibula
13. 2025.12.01.	Immunological mechanisms of the oral mucosal disorders. Oral manifestations of the primary and secondary immunodeficiencies.	Dr Roberta Fajka-Boja

2025. 12 02. 18:00 - 20:00	**2. MTO** Place: Orvosi Fizikai és Orvosi Informatikai Intézet, Korányi fasor 9. Rooms: 12., 22., 24.	More information on the Coospace Forum!
14. 2025.12.08.	Immune tolerance. Tumor immunology. Oral cancers. Transplantation immunology.	Dr Krisztina Buzás

Examination of the learning outcomes:

Attendance at lectures is mandatory.

Requirement of the admission to the exam: no more than 3 (certified) absences allowed in the classroom teaching.

In case of more than 3 absences, the student is not allowed to take the exam!

MTOs:

Two MTOs will be written during the semester.

1. **MTO: 2025. 10. 21. 18:00 - 20:00 (The 1. MTO is mandatory! The absence from the 1. MTO counts as an absence from the lecture!)**
   Place: Orvosi Fizikai és Orvosi Informatikai Intézet, Korányi fasor 9.
   Rooms: 12., 22., 24

2. **MTO: 2025. 12. 02. 18:00 - 20:00**
   Place: Orvosi Fizikai és Orvosi Informatikai Intézet, Korányi fasor 9.
   Rooms: 12., 22., 24

In case that the average result of the two MTOs reaches 80% the grade of the colloquium is offered at the end of the semester. If 80% is reached, it means the offered grade 4 (good), if the averaged result of the two MTOs reaches 90%, the offered grade is 5 (excellent).

Exam:

The first and second exam will be written. You need to reach 60% to pass the exam.

The grades are determined as follows:

0-59% failed (1)
60-69% pass (2)
70-79% satisfactory (3)
80-89% good (4)
90-100% excellent (5)

The second repeated - your third - exam and any further exams are oral. The potential improvement of the examination will be oral (in case somebody wants a better grade than the offered, for example 5 instead of 4).

The unsatisfactory semester mark can be corrected during the examination period in accordance with the examination regulations.

The basics of the exam:

The material of the lectures.

Recommended specialist literature:

Kenneth Murphy and Casey Weaver: Janeway's Immunbiology 9th Edition (Garland Science/Taylor & Francis Group, 2017)

Abul Abbas Andrew Lichtman Shiv Pillai: Basic Immunology Functions and Disorders of the Immune System (Elsevier, 2019)

Abul Abbas Andrew Lichtman Shiv Pillai: Cellular and molecular immunology (Elsevier, 2017)