

Course plan for IMMUNOLOGY
for 3rd semester students **ACADEMIC YEAR 2022/23.**

Course hours

Lectures: 20
Seminars: 10
TOTAL 30

A. WINTER SEMESTER

1. Lectures

	Subject	Date	Time and Place	Lecturer
1.	Introduction. Organization of immune system. Innate/non-specific and adaptive/specific, humoral and cellular immunity. Lymphoid organs and tissues.	5.10.2022.	10:30 – 12:00 Gundulićeva 5 main lecture hall	Assist.Prof. Ivan Šamija
2.	Cells of the immune system: T cells, B cells, NK cells, granulocytes, monocytes/macrophages, antigen presenting cells, basophils, mast cells, platelets. Soluble components of the immune system: antibodies, cytokines, chemokines, complement.	12.10.2022.	10:30 – 12:00 Gundulićeva 5 main lecture hall	Assist.Prof. Ivan Šamija
3.	Innate immunity – local and systemic; cellular and humoral. Inflammation.	19.10.2022.	10:30 – 12:00 Gundulićeva 5 main lecture hall	Assist.Prof. Ivan Šamija
4.	Adaptive/specific immunity. Antigen recognition, B cell antigen receptors, antibodies – structure and function.	26.10.2022.	10:30 – 12:00 Gundulićeva 5 main lecture hall	Assist.Prof. Ivan Šamija
5.	T cell antigen receptors, HLA molecules, antigen processing and presentation. Cooperation of immune cells.	2.11.2022.	10:30 – 12:00 Gundulićeva 5 main lecture hall	Assist.Prof. Ivan Šamija
6.	Humoral and cellular immune response. Regulation of immune response. Immunological tolerance.	9.11.2022.	10:30 – 12:00 Gundulićeva 5 main lecture hall	Assist.Prof. Ivan Šamija
7.	Autoimmunity. Immunodeficiencies.	16.11.2022.	10:30 – 12:00 Gundulićeva 5 main lecture hall	Assist.Prof. Ivan Šamija
8.	Immunological hypersensitivity.	23.11.2022.	10:30 – 12:00 Gundulićeva 5 main lecture hall	Assist.Prof. Ivan Šamija
9.	Transplantation immunology.	30.11.2022.	10:30 – 12:00 Gundulićeva 5 main lecture hall	Assist.Prof. Ivan Šamija
10.	Immunotherapy.	7.12.2022.	10:30 – 12:00 Gundulićeva 5 main lecture hall	Assist.Prof. Ivan Šamija

2. Seminars

	Subject	Date	Time and Place	Lecturer
1.	Immunity to bacteria and fungi.	14.12.2022.	10:30 – 12:00 Gundulićeva 5 main lecture hall	Assist.Prof. Ivan Šamija
2.	Immunity to viruses and parasites.	21.12.2022.	10:30 – 12:00 Gundulićeva 5 main lecture hall	Assist.Prof. Ivan Šamija
3.	Lymphatic tissues of oral cavity, immunological components of saliva.	11.1.2023.	10:30 – 12:00 Gundulićeva 5 main lecture hall	Assist.Prof. Ivan Šamija
4.	Cancer immunology.	18.1.2023.	10:30 – 12:00 Gundulićeva 5 main lecture hall	Assist.Prof. Ivan Šamija
5.	Laboratory immunological methods – morphological and functional tests, molecular methods.	25.1.2023.	10:30 – 12:00 Gundulićeva 5 main lecture hall	Assist.Prof. Ivan Šamija

Seminars are compulsory. If the student is absent from up to two seminars, he/she has to take colloquium from the subject of the seminar he/she was absent from. For each seminar students are required to prepare the material from the E-course in advance. For active participation in the seminars students can get points (one point per seminar) that will be added to the score of written exam.

Students who have finished the course can get the signed indexes at the end of last seminar in the main lecture hall in Gundulićeva 5.

EXAMS

Written and oral exam

Written exam consists of 30 questions (multiple choice or short answers) and lasts 60 minutes. Questions at the exam are related to the subjects of all lectures and seminars. Each correct answer corresponds to one point. 18 points are needed to pass the exam. Grades: 18-20 points = pass, 21-24 points = good, 25-27 points = very good, 28 points and more = excellent. If student passes written exam, he/she can accept the grade from the written exam as final or he can take oral exam no later than two days after the results of the written exam are published. For oral exam student should contact the lecturer (by e-mail: isamija@sfzg.hr) the same day when the results of the written exam are published. If student takes oral exam, grade from the oral exam is final.

Written exam terms

Winter	3.2.2023. 10.2.2023. 24.2.2023.
Summer	7.7.2023.
Autumn	15.9.2023.

LECTURERS

Ivan Šamija, PhD, Assistant Professor, head of Chair of Immunology

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LITERATURE**Basic literature:**

1. How the immune system works, L. Sompayrac, Wiley, 6th ed, 2019.
2. materials from the E-course and presentations from lectures and seminars

Additional literature:

Janeway's Immunobiology, K. Murphy, Garland Science, New York, 10th ed, 2022.