UNIVERSITY OF ZAGREB
FACULTY OF VETERINARY MEDICINE
Heinzelova 55
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Division: Division for Public Health and Food Safety
Organizational unit: Microbiology and Infectious Diseases
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Register No of the organisational unit:
Zagreb, 14/8/2025

COURSE SYLLABUS

Course name: **VETERINARY IMMUNOLOGY**
Academic year 2025/2026

Course leader: Full Prof. Nevenka Rudan

Deputy course leader: (title, name and surname): Assoc. Prof. Selma Pintarić

Teachers: Full Prof. Nevenka Rudan
Assoc. Prof. Selma Pintarić
Postdoctoral assistant Marija Cvetnić
Teaching assistant Valentina Huzjak
Teaching assistant Gorana Miletić

First day of classes: 11/11/2025
Last day of classes: 18/12/25

Activities - Veterinary immunology (1/2)

Start Date	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
11/11/2025	10:15	11:45	p01 Immune system overview; Inflammation	3E-1, 3E-2, 3E-3		1:30	Rudan N.	P_kemija
12/11/2025	12:15	13:45	p02 Antigens and antibodies	3E-1, 3E-2, 3E-3		1:30	Pintarić S.	P_fizika
19/11/2025	10:00	11:30	p03 Cells and Tissues of the Immune System	3E-1, 3E-2, 3E-3		1:30	Rudan N.	P_kemija
20/11/2025	10:00	11:30	v01 Paired sera, titer	3E-3		1:30	Huzjak V.	V_mikrobiologija
21/11/2025	8:15	9:45	v01 Paired sera, titer	3E-1, 3E-2		1:30	Huzjak V.	V_mikrobiologija
24/11/2025	8:00	9:30	p04 Complement system	3E-1, 3E-2, 3E-3		1:30	Pintarić S.	P_mikrobiologija
26/11/2025	8:15	9:45	p05 T Lymphocytes	3E-1, 3E-2, 3E-3		1:30	Pintarić S.	P_fiziologija
26/11/2025	15:30	17:00	v02 Agglutination, precipitation	3E-1, 3E-2		1:30	Pintarić S.	V_mikrobiologija
27/11/2025	10:00	11:30	p06 B Lymphocytes	3E-1, 3E-2, 3E-3		1:30	Rudan N.	P_patologija
28/11/2025	11:30	13:00	v02 Agglutination, precipitation	3E-3		1:30	Pintarić S.	V_mikrobiologija
02/12/2025	8:15	9:45	p07 Hypersensitivity Mechanisms	3E-1, 3E-2, 3E-3		1:30	Rudan N.	P_fiziologija
05/12/2025	8:15	9:45	p08 Vaccine and vaccination	3E-1, 3E-2, 3E-3		1:30	Pintarić S.	P_fizika
09/12/2025	11:15	12:45	v03 Immunofluorescence (DD, IFA), ELISA	3E-1, 3E-2		1:30	Cvetnić M.	V_mikrobiologija
09/12/2025	13:00	14:30	v03 Immunofluorescence (DD, IFA), ELISA	3E-3		1:30	Cvetnić M.	V_mikrobiologija
10/12/2025	10:00	11:30	v04 First Preliminary exam; Complement fixation test	3E-1, 3E-2		1:30	Cvetnić M.	V_mikrobiologija

Activities - Veterinary immunology (2/2)

Start Date	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
10/12/2025	12:30	14:00	v04 First Preliminary exam; Complement fixation test	3E-3		1:30	Huzjak V.	V_mikrobiologija
11/12/2025	10:00	11:30	v05 Hemagluttination-inhibition assay	3E-3		1:30	Rudan N.	V_mikrobiologija
11/12/2025	13:30	15:00	v05 Hemagluttination-inhibition assay	3E-1, 3E-2		1:30	Rudan N.	V_mikrobiologija
12/12/2025	10:00	11:30	v06 Virus neutralization test	3E-3		1:30	Miletić G.	V_mikrobiologija
16/12/2025	12:00	13:30	v06 Virus neutralization test	3E-1, 3E-2		1:30	Miletić G.	V_mikrobiologija
17/12/2025	10:00	11:30	v07 Repetition; Second Preliminary exam	3E-3		1:30	Rudan N.	V_mikrobiologija
18/12/2025	9:00	10:30	v07 Repetition; Second Preliminary exam	3E-1, 3E-2		1:30	Rudan N.	V_mikrobiologija
Total: 22						33:00		

Course: Veterinary Immunology

Timetable for LECTURES academic year 2025/2026

STUDENT OBLIGATIONS

Lecture attendance	Total of 16 lecture hours will hold out. Student must assemble at least 3 points (8 hours of lectures) and can gather at the most of 6 points (16 hours of lectures).
Seminars attendance	
Practicals attendance	Total of 14 hours of laboratory practice will hold out. Student must assemble at least 8 points (10 hours of exercises) and can gather at the most of 12 points (14 hours of exercises).
Active participation in seminars and practicals	Student must assemble at least 5 points for active participation in exercises, which involve two correct answers on the verbal putting questions. The most of 10 points involve four correct answers on the verbal putting questions.
Final exam	For approaching to final exam, student must assemble at least 36 points from these segments of teaching: lecture attendance, practical attendance, active participation in practicals and continuous knowledge-checking. Final exam is in written form and consists of 40 questions. Student must assemble at least 24 points from final exam and at the most of 40 points.
Examination requirements	Student requirements are defined in the Regulations on the Integrated Undergraduate and Graduate Study of Veterinary Medicine (2024). Given the above, the student must acquire a minimum number of points from all assessment elements in order to take the final exam. **Regulations On Intergraduate And Graduate Studies, Article 41:** a student can justifiably be absent from up to 50% of the lectures; 30% of the seminars and 30% of the exercises.

GRADING AND EVALUATING STUDENT WORK

Continuous knowledge-checking (mid-terms)	First test: 10/12/2025 Second test: 17/12/2025; 18/12/2025
Final exams (dates)	5/2/2026; 19/2/2026
Form of final exam	written

LITERATURE

Obligatory literature	DAY, M. J., R. D. SCHULTZ (2011): Veterinary Immunology Principles and Practice. 2nd ed. Manson Publishing/The Veterinary Press.
Optional literature	TIZARD, I. (2012): Veterinary Immunology. W.B. Sounders Company, Philadelphia, USA.

Course: Veterinary Immunology

OBJECTIVES AND LEARNING OUTCOMES

Course objectives	The veterinary immunology courses taught to second-year veterinary medical students via fifteen didactic lectures. Students get familiar with basic immunology knowledge, inflectional immunology and allergic diseases, basic knowledge of autoimmune diseases and immunomodulation. Veterinary immunology is an important preclinical course that enables student to understand other courses such as microbiology, pathology, pharmacology, internal diseases and infectious diseases, particularly regards to pathogenesis and infectious diseases diagnostics and hypersensitivity, carrying out of immunoprophylaxis and assessment of immune status. During the study students become familiar with vaccines and their usage, simple immunology diagnostic procedures and use of commercially available vaccines.
Learning outcomes	Student will/will be able to: 1. To distinguish serological tests for the purpose of identifying the causative agents of infectious diseases 2. To perform basic serological reactions in order to establish a correct diagnosis of an infectious disease by detecting specific antibodies 3. To read and interpret the results obtained from serological reactions 4. To differentiate types of vaccines, explain their significance, and describe a vaccination plan for the purpose of protecting animal health 5.To explain hyper- and hypo-reactivity of the immune system and their consequences.

Course: Veterinary Immunology

GRADING SCHEME

Points	*Grade*
Up to 59	1 (F)
60-76	2 (D,E)
77-84	3 (C)
85-92	4 (B)
93-100	5 (A)

Course leader

Head of organizational unit:

Note: The course leader is required to submit a Course Syllabus to all teachers and associates pertaining to the Course