

Course: Poultry diseases

UNIVERSITY OF ZAGREB
FACULTY OF VETERINARY MEDICINE
Heinzelova 55
Tel. 01/2390 281
Division: Veterinary Public Health and Food Safety
Organizational unit: Poultry Diseases with Clinic
E-mail of the course leader: gottstei@vef.unizg.hr
Register No. of the organisational unit: 61-18-025-81
Zagreb, 5/9/2025.



207125	REPUBLIKA HRVATSKA		
Veterinarski fakultet u Zagrebu			
Primljeno:	09.09.2025		
Klasifikacijska oznaka	Org. jed.		
602-04/25-22/34	251-61-41;251-61-32;		
Urudžbeni broj	Prilozi	Vrijednos	
251-61-18-25-63	0	-	

COURSE SYLLABUS

Course name: **Poultry diseases**
Academic year 2025/2026

Course leader: Assoc. Prof. Željko Gottstein

Deputy course leader: (title, name and surname): Full Prof. Danijela Horvatek Tomić

Teachers: Full Prof. Danijela Horvatek Tomić, Assoc. Prof. Željko Gottstein, Assist. Prof. Dražen Đuričić, Assist. Prof. Maja Lukač,
postdoctoral assistant Liča Lozica, PhD, Emanuel Budicin, DVM

First day of classes: 29/9/2025
Last day of classes: 26/11/2025

Activities - Poultry Diseases (1/4)

Start Date	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
29/09/2025	12:00	13:30	p01 Poultry production in the world, preventive measures	11E-1, 11E-2, 11E-3		1:30	Gottstein Ž.	P_amfiteatar
30/09/2025	8:15	9:45	p02 Infectious bursal disease, Chicken infectious anemia	11E-1, 11E-2, 11E-3		1:30	Gottstein Ž.	P_amfiteatar
01/10/2025	11:30	13:00	p03 Neoplastic diseases	11E-1, 11E-2, 11E-3		1:30	Gottstein Ž.	P_amfiteatar
02/10/2025	12:00	13:30	p04 Newcastle disease and other paramyxovirus diseases	11E-1, 11E-2, 11E-3		1:30	Gottstein Ž.	P_patologija
03/10/2025	9:15	10:45	p05 Avian influenza, Avian Metapneumovirus infection	11E-1, 11E-2, 11E-3		1:30	Gottstein Ž.	P_amfiteatar
06/10/2025	11:30	13:00	s01 Poultry immune system	11E-1, 11E-2, 11E-3		1:30	Nastavnici na predmetu	P_fizika
07/10/2025	9:15	10:45	s02 Pathogenesis of respiratory diseases	11E-1, 11E-2, 11E-3		1:30	Nastavnici na predmetu	P_amfiteatar
08/10/2025	13:00	14:30	s03 Other viral diseases and viral diseases of waterfowl	11E-1, 11E-2, 11E-3		1:30	Nastavnici na predmetu	P_patologija
09/10/2025	13:45	15:15	v01 Biosecurity	11E-3		1:30	Nastavnici na predmetu	P_patologija
10/10/2025	14:45	16:15	v01 Biosecurity	11E-1, 11E-2		1:30	Nastavnici na predmetu	P_patologija
13/10/2025	9:00	15:00	t01 Field trip - hatchery	11E-1, 11E-2, 11E-3		6:00	Nastavnici na predmetu	
14/10/2025	15:15	16:45	v02 Introduction to poultry necropsy 1	11E-1, 11E-2		1:30	Nastavnici na predmetu	S_patologija
16/10/2025	8:15	9:45	v02 Introduction to poultry necropsy 1	11E-3		1:30	Nastavnici na predmetu	S_patologija

Activities - Poultry Diseases (2/4)

Start Date	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
20/10/2025	8:00	9:30	s04 Mycoplasma and other bacterial diseases of respiratory system	11E-1, 11E-2, 11E-3		1:30	Nastavnici na predmetu	P_patologija
20/10/2025	10:00	16:00	t02 Field trip - Broiler farm	11E-1, 11E-2, 11E-3		6:00	Nastavnici na predmetu	
21/10/2025	10:00	11:30	s05 Other bacterial diseases	11E-1, 11E-2, 11E-3		1:30	Nastavnici na predmetu	P_amfiteatar
22/10/2025	8:00	9:30	p06 Infectious bronchitis, Infectious laryngotracheitis, Fowlpox	11E-1, 11E-2, 11E-3		1:30	Gottstein Ž.	P_kemija
22/10/2025	10:00	16:00	t03 Field trip - Layer farm	11E-1, 11E-2, 11E-3		6:00	Nastavnici na predmetu	
23/10/2025	10:15	11:45	s06 Fungal diseases and Mycotoxicoses	11E-1, 11E-2, 11E-3		1:30	Nastavnici na predmetu	P_amfiteatar
28/10/2025	8:00	9:30	p07 Avian encephalomyelitis, Adenovirus infections	11E-1, 11E-2, 11E-3		1:30	Gottstein Ž.	P_amfiteatar
28/10/2025	11:30	13:00	v03 Poultry necropsy 2	11E-1, 11E-2		1:30	Nastavnici na predmetu	S_patologija
29/10/2025	8:00	10:15	v04 Virology lab	11E-1, 11E-2		2:15	Nastavnici na predmetu	V_mikrobiologija
29/10/2025	10:45	12:15	s07 Parasitic diseases	11E-1, 11E-2, 11E-3		1:30	Nastavnici na predmetu	P_amfiteatar
29/10/2025	14:30	16:00	v03 Poultry necropsy 2	11E-3		1:30	Nastavnici na predmetu	S_patologija
30/10/2025	8:15	9:45	p08 Salmonella and other enterobacterial infections	11E-1, 11E-2, 11E-3		1:30	Lukač M.	P_amfiteatar

Activities - Poultry Diseases (3/4)

Start Date	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
30/10/2025	12:00	13:30	s08 Field cases	11E-1, 11E-2, 11E-3		1:30	Nastavnici na predmetu	P_patologija
30/10/2025	13:45	16:00	v04 Virology lab	11E-3		2:15	Nastavnici na predmetu	V_mikrobiologija
03/11/2025	8:15	9:45	v05 Molecular lab	11E-1		1:30	Nastavnici na predmetu	R_stočarstvo velika
03/11/2025	10:00	11:30	v05 Molecular lab	11E-2, 11E-3		1:30	Nastavnici na predmetu	R_stočarstvo velika
04/11/2025	9:00	9:45	v06 Poultry necropsy 3	11E-1, 11E-2, 11E-3		0:45	Nastavnici na predmetu	S_patologija
04/11/2025	10:00	11:30	s09 Field cases	11E-1, 11E-2, 11E-3		1:30	Nastavnici na predmetu	P_fiziologija
05/11/2025	11:30	13:00	v07 Bacteriology lab	11E-3		1:30	Nastavnici na predmetu	V_mikrobiologija
11/11/2025	8:00	9:30	v07 Bacteriology lab	11E-1, 11E-2		1:30	Nastavnici na predmetu	V_mikrobiologija
11/11/2025	13:15	14:45	s10 Field cases	11E-1, 11E-2, 11E-3		1:30	Nastavnici na predmetu	P_amfiteatar
12/11/2025	8:15	9:45	p09 Bacterial zoonoses	11E-1, 11E-2, 11E-3		1:30	Horvatek Tomić D.	P_amfiteatar
13/11/2025	8:15	9:45	p10 Pasteurella and related diseases	11E-1, 11E-2, 11E-3		1:30	Horvatek Tomić D.	P_amfiteatar
14/11/2025	11:15	12:00	v08 Poultry necropsy 4	11E-1, 11E-2, 11E-3		0:45	Nastavnici na predmetu	S_patologija
19/11/2025	12:00	12:45	v09 Poultry necropsy 5	11E-1, 11E-2, 11E-3		0:45	Nastavnici na predmetu	S_patologija

Activities - Poultry Diseases (4/4)

Start Date	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
20/11/2025	8:15	9:45	v10 Examination of hatch debris	11E-1, 11E-2, 11E-3		1:30	Nastavnici na predmetu	S_patologija
24/11/2025	12:00	13:30	p11 Metabolic diseases ricardium syndrome	11E-1, 11E-2, 11E-3		1:30	Horvatek Tomić D.	P_amfiteatar
25/11/2025	9:15	11:30	p12 Fungal and parasitic diseases	11E-1, 11E-2, 11E-3		2:15	Horvatek Tomić D.	P_amfiteatar
25/11/2025	11:45	14:00	v11 Vaccination techniques and blood sampling	11E-3		2:15	Nastavnici na predmetu	V_perad
26/11/2025	9:15	11:30	v11 Vaccination techniques and blood sampling	11E-1, 11E-2		2:15	Nastavnici na predmetu	V_perad
21/01/2026	10:00	11:00	Poultry Diseases		Kolokvij	1:00	Gottstein Ž.	P_kemija
Total: 44						80:30		

STUDENT OBLIGATIONS

Lecture attendance	During the course student can get maximum 6 points for 25 hours of lectures, minimum 3 points for 13 hours of lectures (0,24 points per hour)
Seminars attendance	During the course student can get maximum 6 points for 20 hours (0,3 points per hour) of seminars, and minimum 4 points for 16 hours of seminars as 20% of absence is maximum.
Practicals attendance	During the course student participate in 30 hours of practicals and for that can get maximum 6 points for 30 hours (0,2 points per hour), and minimum 4 points for 24 hours of practicals as 20% of absence is maximum.
Active participation in seminars and practicals	For activity on seminars and exercises student can get max. 10 points and min. 5 points. Activity on seminars is obligatory and is graded according to successfully prepared and held seminar and for positively oriented answers with min. 3 points and max. 6 points (for positive answers on 5 written questions 0,1 points can be given, and for 5 answers it is total 0,5 points per seminar, with minimum of 3 positive answers during 8 seminars. Students without positive answers give oral answers to two questions). For given seminar presentation minimum 0,5 and maximum 1 point. Student must collect 2,5 points for written questions and 0,5 points for given seminar. For activity on exercises (successfully performed practical part) student can get max 2 points (on 15 practicals can get 0,133 points), and minimum 1 point (on 10 practicals 0,1 point). Also for positive answers can get max 2 points (on 15 practicals can get 0,133 points per answers), and minimum 1 point (on 10 practicals 0,1 point).
Final exam	Oral exam gives 24 to 40 points. Student answers 10 questions, and for 1 question can get 4 points. Student can apply for the final exam with min 36 points: minimum 16 points from attendance and activity on seminars and exercises, and 20 points from continuous assessment (colloquium). Final grade is defined quantitatively, with numeric point scale and a grade corresponding to that scale, from 1 to 5. With grade 1 (one) student is graded if she/he didn't pass the course, i.e. he failed on the exam. For each student its attendance and activity is registered in its personal form, together with its success on the colloquium, what teacher uses to form final grade.
Examination requirements	Student requirements are defined in the Regulations on the Integrated Undergraduate and Graduate Study of Veterinary Medicine (2022). Given the above, the student must acquire a minimum number of points from all assessment elements in order to take the final exam. 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)	In agreement with teachers. Continuous assessment brings min. 20 and max. 32 points during colloquium, in which for 10 questions student can get min. 20 and max. 32 points (1 positive answer is 3,2 points)
Final exams (dates)	12/11/2025, 12/12/2025, 4/2/2026, 10/2/2026 18/2/2026
Form of final exam	Oral

LITERATURE

Obligatory literature	1. Swayne, D. E. et al. (2020): Diseases of poultry. 14th ed., Wiley-Blackwell, USA. 2. Boulianne, M.L. et al. (2013): Avian Disease Manual. AAAP, SAD. 3. Brugère-Picoux J., J.P. Vaillancourt, M. Bouzouaia, D. Venne, H.L. Shivaprasad (2015): Manual of Poultry Diseases. AFAS, Paris, France.
Optional literature	1. Abdul-Aziz, T., H.J. Barnes (2018.): Gross Pathology of Avian Diseases: Text and Atlas. AAAP, SAD. 2. Abdul-Aziz, T., O.J. Fletcher, H.J. Barnes (2016.): Avian Histopathology. AAAP, SAD. 3. Dinev, I. (2014): CEVA Handbook of Poultry Diseases vol. 1. CEVA, France. 4. Dinev, I. (2014): CEVA Handbook of Poultry Diseases vol. 2. CEVA, France. 5. Dinev, I. (2010): Diseases of Poultry a Colour Atlas, 2nd ed., CEVA, France. 6. Selected papers and internet materials.

OBJECTIVES AND LEARNING OUTCOMES

Course objectives	The aim of the course is to acquire knowledge on occurrence and spreading, clinical detection, pathological changes, diagnostics and treatment of diseases as well as preventive procedures needed for field work.
Learning outcomes	- Recognize poultry diseases of infectious and noninfectious ethiology - Assessing technology principles and poultry health protection be able to independently organize health control on poultry holdings in defined area. - Independently analyze serology and other diagnostic procedure results and recommend and apply immunoprotection measures.

- Independently select and apply appropriate treatment and control procedures with aim to protect and control specific diseases, especially zoonosis.
- Perform necropsy and select appropriate samples for further diagnostic procedures.

GRADING SCHEME

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

Course leader:


Assoc. prof. Željko Gottstein

Head of Department/Clinic:


Assoc. prof. Željko Gottstein

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

**GRADING AND EVALUATION OF STUDENT WORK ON COURSES WITH LECTURES,
SEMINARS and PRACTICALS**

Type of activity	Minimum number of points	Maximum number of points
Lectures attendance 25 hours (XI semester)	3 3/0,24 = 13 hours of lecture	6 6/25 = 0,24 (coefficient for 1 hour of lecture attendance)
Seminar attendance 20 hours (XI semester)	4 maximum 30% absence (7 hours) 13 hours of seminars obligatory	6 6/20 = 0,3 (coefficient for 1 hour of seminar attendance)
Practicals attendance 30 hours (XI semester)	4 maximum 30% absence (10 hours) 20 hours of practicals obligatory	6 6/30 = 0,2 (coefficient for 1 hour of exercise attendance)
Active participation in seminars and practicals (10 points) ¹	5 Minimum 3 points on seminars (0,5 for seminar + 2,5 for answers on exit colloquium during 8 seminars (8x0,3)) + Minimum 2 points on exercises (1 point for for activity (10x0,1) and 1 point for answers (10x0,1))	10 Maximum 6 points on seminars (1 point for seminar + 5 points for answers on exit colloquium during 10 seminars (10x0,5)) + Maximum 4 points on exercises (2 points for successfully finished practicals (15x0,133) and 2 points for answers (15x0,133))
Continuous knowledge checking (mid-terms) (32 points) ²	20 Minimum 6,25 answers x 3,2 points	32 Maximum 10 answers x 3,2 points
Final exam (40 points) ³	24 24/1 = 24 (coefficient 1)	40 40/40 = 1 (coefficient 1)
TOTAL	60	100