

UNIVERSITY OF ZAGREB
FACULTY OF VETERINARY MEDICINE
Heinzelova 55
Tel. 01/23 90 350
Division: Clinical Division
Organizational unit: Internal Medicine
E-mail of the course leader: mtorti@vef.unizg.hr
Register No of the organisational unit:
Zagreb, 05/09/2025

COURSE SYLLABUS

Course name:
Academic year 2025/2026

Course leader: Assoc. Prof. Marin Torti, PhD, DVM

Deputy course leader: (title, name and surname): Assoc. Prof. Jelena Gotić, PhD, DVM

Teachers: Prof. Damjan Gračner, PhD, DVM, Prof. Nada Kučer, PhD, DVM, Prof. Nikša Lemo, PhD, DVM, DECV, Prof. Vesna Matijatko, PhD, DVM, Assoc. Prof. Mirna Brkljačić, PhD, DVM, Assoc. Prof. Martina Crnogaj, PhD, DVM, Assoc. Prof. Jelena Gotić, PhD, DVM, Assoc. Prof. Ivana Kiš, PhD, DVM, Assoc. Prof. Iva Šmit, PhD, DVM, Assoc. Prof. Marin Torti, PhD, DVM, Assist. Prof. Darko Grden, PhD, DVM, Maša Efendić, PhD, DVM, Gabrijela Jurkić, PhD, DVM, Filip Kajin, PhD, DVM, DECVN, Blanka Beer Ljubić, PhD, DVM, Katarina Marjanović, DVM, Elizabeta Pongrac, DVM.

First day of classes: 29/09/2025

Last day of classes: 25/11/2025

	
207186	REPUBLIKA HRVATSKA
Veterinarski fakultet u Zagrebu	
Primljeno:	10.09.2025
Klasifikacijska oznaka	Org. jed.
602-04/25-22/34	251-61-41;251-61-32;
Uredbeni broj	Prilozi Vrijednost
251-61-20-25-71	0 -

Activities - Internal Medicine I (1/6)

Start Dat	Start	End	Subject	Subject	Group	Note	Length	Instructor	Room
29/09/2025	10:00	11:30	Internal Medicine I	p01 Introduction. Hematology I	7E-1, 7E-2, 7E-3		1:30	Torti M., Šmit I.	P_farmakologija
29/09/2025	11:45	13:15	Internal Medicine I	p02 Hematology II	7E-1, 7E-2, 7E-3		1:30	Šmit I.	P_farmakologija
30/09/2025	14:00	15:30	Internal Medicine I	p03 Hematology III	7E-1, 7E-2, 7E-3		1:30	Brkljačić M., Crnogaj M.	P_farmakologija
02/10/2025	10:00	11:30	Internal Medicine I	p05 Sepsis. Vet. emerg. med. I	7E-1, 7E-2, 7E-3		1:30	Gotić J.	P_mikrobiologija
02/10/2025	13:30	15:00	Internal Medicine I	p06 Vet. emerg. med. II	7E-1, 7E-2, 7E-3		1:30	Matijatko V.	P_klinike
03/10/2025	11:45	13:15	Internal Medicine I	p07 GI symptomatology. Upper GI dz.	7E-1, 7E-2, 7E-3		1:30	Šmit I.	P_fiziologija
06/10/2025	10:00	11:30	Internal Medicine I	p08 Lower GI dz.	7E-1, 7E-2, 7E-3		1:30	Brkljačić M.	P_farmakologija
06/10/2025	11:45	13:15	Internal Medicine I	p09 GDV, gastritis, gastric ulcer	7E-1, 7E-2, 7E-3		1:30	Crnogaj M.	P_farmakologija
07/10/2025	12:15	13:45	Internal Medicine I	p10 Liver and pancreas dz.	7E-1, 7E-2, 7E-3		1:30	Crnogaj M., Kiš I.	P_fiziologija
07/10/2025	14:00	15:30	Internal Medicine I	p11 Upper resp. dz.	7E-1, 7E-2, 7E-3		1:30	Crnogaj M.	P_fiziologija
08/10/2025	8:00	14:00	Internal Medicine I	v01 Clinical practice 1	7E-1		6:00	Nastavnici na predmetu	V_interna
08/10/2025	8:00	14:00	Internal Medicine I	v01 Clinical practice 1	7E-3		6:00	Nastavnici na predmetu	V_interna 2

Activities - Internal Medicine I (2/6)

Start Dat	Start	End	Subject	Subject	Group	Note	Length	Instructor	Room
09/10/2025	8:00	14:00	Internal Medicine I	v02 Clinical practice 2	7E-1		6:00	Nastavnici na predmetu	V_interna
09/10/2025	8:00	14:00	Internal Medicine I	v02 Clinical practice 2	7E-3		6:00	Nastavnici na predmetu	V_interna
10/10/2025	8:00	14:00	Internal Medicine I	v03 Clinical practice 3	7E-1		6:00	Nastavnici na predmetu	V_interna
10/10/2025	8:00	14:00	Internal Medicine I	v03 Clinical practice 3	7E-3		6:00	Nastavnici na predmetu	V_interna
14/10/2025	8:00	14:00	Internal Medicine I	v04 Clinical practice 4	7E-1		6:00	Nastavnici na predmetu	V_interna
14/10/2025	8:00	14:00	Internal Medicine I	v04 Clinical practice 4	7E-3		6:00	Nastavnici na predmetu	V_interna
15/10/2025	8:00	14:00	Internal Medicine I	v05 Clinical practice 5	7E-1		6:00	Nastavnici na predmetu	V_interna
15/10/2025	8:00	14:00	Internal Medicine I	v05 Clinical practice 5	7E-3		6:00	Nastavnici na predmetu	V_interna
16/10/2025	8:00	14:00	Internal Medicine I	v06 Clinical practice 6	7E-1		6:00	Nastavnici na predmetu	V_interna 2
16/10/2025	8:00	14:00	Internal Medicine I	v06 Clinical practice 6	7E-3		6:00	Nastavnici na predmetu	V_interna 2
17/10/2025	8:00	14:00	Internal Medicine I	v07 Clinical practice 7	7E-1		6:00	Nastavnici na predmetu	V_interna 2
17/10/2025	8:00	14:00	Internal Medicine I	v07 Clinical practice 7	7E-3		6:00	Nastavnici na predmetu	V_interna 2

Activities - Internal Medicine I (3/6)

Start Dat	Start	End	Subject	Subject	Group	Note	Length	Instructor	Room
21/10/2025	14:00	15:30	Internal Medicine I	p12 Pneumothorax, effusions. Pneumonias	7E-1, 7E-2, 7E-3		1:30	Matijatko V., Torti M.	P_klinike
21/10/2025	16:00	18:00	Internal Medicine I	v08 Clinical practice 1	7E-1		2:00	Nastavnici na predmetu	V_interna
22/10/2025	16:00	18:00	Internal Medicine I	v09 Clinical practice 2	7E-1		2:00	Nastavnici na predmetu	V_interna
23/10/2025	11:45	13:15	Internal Medicine I	p13 Bronchitis, feline asthma. Equine asthma	7E-1, 7E-2, 7E-3		1:30	Grden D., Torti M.	P_fiziologija
23/10/2025	13:45	15:15	Internal Medicine I	p14 CV symptoms, pericardial dz., PulHyp	7E-1, 7E-2, 7E-3		1:30	Torti M.	P_klinike
23/10/2025	16:00	18:00	Internal Medicine I	v10 Clinical practice 3	7E-1		2:00	Nastavnici na predmetu	V_interna
24/10/2025	10:15	11:45	Internal Medicine I	p15 Cong. heart dz. Valve dz.	7E-1, 7E-2, 7E-3		1:30	Torti M.	P_klinike
24/10/2025	14:00	15:30	Internal Medicine I	p16 Arrhythmias	7E-1, 7E-2, 7E-3		1:30	Torti M.	P_klinike
27/10/2025	12:15	13:45	Internal Medicine I	p17 Cardiomyopathies. Equine cardiol.	7E-1, 7E-2, 7E-3		1:30	Torti M.	P_klinike
27/10/2025	14:00	15:30	Internal Medicine I	p18 AKI. FLUTD.	7E-1, 7E-2, 7E-3		1:30	Kiš I.	P_klinike

Activities - Internal Medicine I (4/5)

Start Dat	Start	End	Subject	Subject	Group	Note	Length	Instructor	Room
28/10/2025	10:00	11:30	Internal Medicine I	p19 CRF. Lower UT dz.	7E-1, 7E-2, 7E-3		1:30	Crnogaj M.	P_klinike
28/10/2025	12:00	13:30	Internal Medicine I	p20 Oncology I	7E-1, 7E-2, 7E-3		1:30	Brkljačić M., Kučer N.	P_klinike
29/10/2025	9:15	10:45	Internal Medicine I	p21 Oncology II	7E-1, 7E-2, 7E-3		1:30	Kučer N.	P_klinike
29/10/2025	16:00	18:00	Internal Medicine I	v08 Clinical practice 1	7E-3		2:00	Nastavnici na predmetu	V_interna
30/10/2025	12:00	13:30	Internal Medicine I	p22 Oncology III. Equine urinary tract	7E-1, 7E-2, 7E-3		1:30	Kučer N.	P_fizika
30/10/2025	16:00	18:00	Internal Medicine I	v09 Clinical practice 2	7E-3		2:00	Nastavnici na predmetu	V_interna
31/10/2025	12:00	13:30	Internal Medicine I	p23 Equine gastric dz. Myopathies	7E-1, 7E-2, 7E-3		1:30	Grden D., Kučer N.	P_klinike
31/10/2025	16:00	18:00	Internal Medicine I	v10 Clinical practice 3	7E-3		2:00	Nastavnici na predmetu	V_interna
03/11/2025	9:30	11:00	Internal Medicine I	p24 Equine colic I	7E-1, 7E-2, 7E-3		1:30	Gotić J.	P_klinike
03/11/2025	14:30	16:00	Internal Medicine I	p04 Biochem. interpretation. Immune-mediated dz	7E-1, 7E-2, 7E-3		1:30	Brkljačić M.	P_klinike
04/11/2025	10:00	11:30	Internal Medicine I	p25 Equine colic II	7E-1, 7E-2, 7E-3		1:30	Gotić J.	P_klinike

Activities - Internal Medicine I (5/6)

Start Dat	Start	End	Subject	Subject	Group	Note	Length	Instructor	Room
05/11/2025	8:00	14:00	Internal Medicine I	v01 Clinical practice 1	7E-2		6:00	Nastavnici na predmetu	V_interna 2
06/11/2025	8:00	14:00	Internal Medicine I	v02 Clinical practice 2	7E-2		6:00	Nastavnici na predmetu	V_interna
06/11/2025	14:15	15:45	Internal Medicine I	p26 Ruminants I	7E-1, 7E-2, 7E-3		1:30	Gračner D.	P_klinike
07/11/2025	8:00	14:00	Internal Medicine I	v03 Clinical practice 3	7E-2		6:00	Nastavnici na predmetu	V_interna
11/11/2025	8:00	14:00	Internal Medicine I	v04 Clinical practice 4	7E-2		6:00	Nastavnici na predmetu	V_interna
12/11/2025	8:00	14:00	Internal Medicine I	v05 Clinical practice 5	7E-2		6:00	Nastavnici na predmetu	V_interna
13/11/2025	8:00	14:00	Internal Medicine I	v06 Clinical practice 6	7E-2		6:00	Nastavnici na predmetu	V_interna 2
14/11/2025	8:00	14:00	Internal Medicine I	v07 Clinical practice 7	7E-2		6:00	Nastavnici na predmetu	V_interna 2
19/11/2025	16:00	18:00	Internal Medicine I	v08 Clinical practice 1	7E-2		2:00	Nastavnici na predmetu	V_interna
20/11/2025	16:00	18:00	Internal Medicine I	v09 Clinical practice 2	7E-2		2:00	Nastavnici na predmetu	V_interna
21/11/2025	10:00	11:30	Internal Medicine I	p27 Ruminants II	7E-1, 7E-2, 7E-3		1:30	Gračner D.	P_klinike
21/11/2025	16:00	18:00	Internal Medicine I	v10 Clinical practice 3	7E-2		2:00	Nastavnici na predmetu	V_interna

Activities - Internal Medicine I (6/6)

Start Dat	Start	End	Subject	Subject	Group	Note	Length	Instructor	Room
24/11/2025	10:00	11:30	Internal Medicine I	p28 Ruminants III	7E-1, 7E-2, 7E-3		1:30	Gračner D.	P_klinike
24/11/2025	14:00	15:30	Internal Medicine I	p29 Ruminants IV	7E-1, 7E-2, 7E-3		1:30	Gračner D.	P_klinike
25/11/2025	8:15	9:45	Internal Medicine I	p30 Hypoglycemia, -magnesemia. Trace elements.	7E-1, 7E-2, 7E-3		1:30	Gračner D., Grden D.	P_klinike
Total: 60							189:00		

Timetable for LECTURES academic year 2025/2026

STUDENT OBLIGATIONS

Lecture attendance	By attending lectures in the seventh semester the student gains from 2 to 4 points (60 lecture hours; each lecture hour equals a coefficient of 0,0665) and in the eight semester 1 to 2 points (30 lecture hours; each lecture hour equals a coefficient of 0,0665). Student must attend at least 30 lecture hours (50%) in the seventh semester , for a minimum of 3 points , and at least 15 lecture hours (50%) in the eight semester , for a minimum of 1 point . The maximum number of points from this element is 6 points.
Seminars attendance	During the semester the student must perform at least 8 different standardized practical procedures on animals for a minimum of 5 points . The maximum number of points from this element is 10 points, or 16 different practical procedures.
Practicals attendance	By attending practicals in the seventh semester the student gains from 5 to 7 points (69 exercise hours; each exercise hour equals a coefficient of 0,1) and in the eight semester 3 to 4 (42 exercise hours; each exercise hour equals a coefficient of 0,1). Student must attend at least 48 exercise hours (70%) in the seventh semester , for a minimum of 5 points , and at least 30 exercise hours (70%) in the eight semester , for a minimum of 3 points . The maximum number of points from this element is 10 points.
Active participation in seminars and practicals	During the semester the student must perform 8 different activities (practical procedures or patient analyses) by himself to achieve a minimum of 5 points. The maximum of this element is 10 points (16 different independent activities). Each activity is 0.625 point.
Final exam	The final exam includes written and oral exam. Written exam is composed of 24 questions. The student must answer 14 questions correctly to achieve a minimum of 14 points to fulfil the criteria for oral exam. The maximum of written part of final exam is 24 points (24 correct answers). Each correct answer is 1 point. The oral part of final exam is composed of 8 questions. The minimum points per each question is 1.25 points while maximum is 2 points. The minimum of oral part of the final exam is 10 points and maximum is 16 points. Therefore, the minimum of points required for student to pass the final exam (both written and oral) is 24 points while maximum is 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)	The students will have during the seventh semester a mid-term (preliminary) written exam consisting of 16 questions. Each question equals 2 points, with a maximum of 32 points. The minimum number of points required to pass is 20 . Taking and passing the test is required for the continuation into the eight semester and registration of final exam. Mid-term (preliminary) written exam dates: 03/11/2025, 10/11/2025, 17/11/2025, 24/11/2025.
Final exams (dates)	04/12/2025, 09/02/2026, 17/02/2026.
Form of final exam	Written exam and oral exam following passed written exam.

LITERATURE

Obligatory literature	Lecture handouts via Merlin. Selected chapters from (list available via Merlin): 1. ETTINGER, S. J., E. C. FELDMAN, E. COTE (2018): Textbook of Veterinary Internal Medicine, 8th Edition, Saunders Elsevier, Edinburgh, London, New York, Oxford, Philadelphia, St. Louis, Sydney, Toronto. 2. NELSON, R. W., C. G. COUTO (2019): Small Animal Internal Medicine, 6th Edition, Saunders Elsevier, Edinburgh, London, New York, Oxford, Philadelphia, St. Louis, Sydney, Toronto. 3. RADOSTITS, O. M., C. C. GAY, K. W. HINCHCLIFF, P. D. CONSTABLE (2007): Veterinary medicine. A textbook of the diseases of cattle, horses, sheep, pigs, and goats. 10th Edition, Saunders Elsevier, Edinburgh, London, New York, Oxford, Philadelphia, St. Louis, Sydney, Toronto. 4. SMITH, B. P., D. C. VAN METRE, N. PUSTERLA (2019): Large Animal Internal Medicine, 6th Edition, Saunders Elsevier, Edinburgh, London, New York, Oxford, Philadelphia, St. Louis, Sydney, Toronto.
Optional literature	1. ETTINGER, S. J., E. C. FELDMAN, E. COTE (2018): Textbook of Veterinary Internal Medicine, 8th Edition, Saunders Elsevier, Edinburgh, London, New York, Oxford, Philadelphia, St. Louis, Sydney, Toronto. 2. NELSON, R. W., C. G. COUTO (2019): Small Animal Internal Medicine, 6th Edition, Saunders Elsevier, Edinburgh, London, New York, Oxford, Philadelphia, St. Louis, Sydney, Toronto. 3. RADOSTITS, O. M., C. C. GAY, K. W. HINCHCLIFF, P. D. CONSTABLE (2007): Veterinary medicine. A textbook of the diseases of cattle, horses, sheep, pigs, and goats. 10th Edition, Saunders Elsevier, Edinburgh, London, New York, Oxford, Philadelphia, St. Louis, Sydney, Toronto. 4. SMITH, B. P., D. C. VAN METRE, N. PUSTERLA (2019): Large Animal Internal Medicine, 6th Edition, Saunders Elsevier, Edinburgh, London, New York, Oxford, Philadelphia, St. Louis, Sydney, Toronto.

OBJECTIVES AND LEARNING OUTCOMES

Course objectives	Diagnosis and treatment of the diseases of digestive, cardiovascular, respiratory, and urinary system, as well as diagnosis and treatment of neurologic, endocrinological, hematopoietic, neoplastic, dermatological diseases in different species of domestic animals. Basics of emergency and critical care medicine.
Learning outcomes	1. Students will be able to establish a diagnosis based on disease history and clinical examination. 2. Students will have adequate knowledge to make a list of differential diagnoses and to decide which advanced clinical methods should be used to establish a final diagnosis. 3. Students will be able to interpret the results of various findings. 4. Students will be able to order an adequate treatment according to symptoms and diagnosis. 5. Based on the trend of various findings students will be able to modify the treatment. 6. Based on everything afore mentioned, students will be able to form a correct outcome prognosis.

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



Head of organizational unit:



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