

Course: Internal Medicine

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, 10/02/2025

		
198096	REPUBLIKA HRVATSKA	
Veterinarski fakultet u Zagrebu		
Primljeno:	12.02.2025	
Klasifikacijska oznaka	Org. jed.	
602-04/24-22/38	251-61-41/251-61-33	
Urudžbeni broj	Prilozi	Vrijednost
251-61-20-25-159	0	-

COURSE SYLLABUS

Course name: Internal Medicine
Academic year 2024/2025

Course leader: Assoc. Prof. Marin Torti, PhD, DVM
Deputy course leader: Assoc. Prof. Jelena Gotić, PhD, DVM
Teachers: Prof. Damjan Gračner, PhD, DVM, Prof. Nada Kučer, PhD, DVM, Prof. Nikša Lemo, PhD, DVM, DECVD, 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, Blanka Beer Ljubić, PhD, DVM, Katarina Marjanović, DVM, Elizabeta Pongrac, DVM.

First day of classes: 06/03/2025

Last day of classes: 03/06/2025

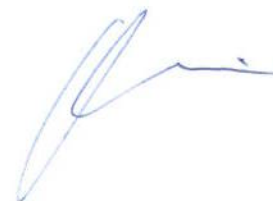
Activities - Internal Medicine II (1/4)								
Start Date	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
03/03/2025	13:30	15:00	p01 Pig Medicine	8E-1, 8E-2, 8E-3		1:30	Grden D.	P_klinike
04/03/2025	15:15	16:45	p02 Dermatology 1 (Pruritus. Allergies)	8E-1, 8E-2, 8E-3		1:30	Lemo N.	P_klinike
05/03/2025	15:15	16:45	p03 Dermatology 2 (Otitis. Cats)	8E-1, 8E-2, 8E-3		1:30	Lemo N.	P_fiziologija
06/03/2025	8:15	9:45	p04 Dermatology 3 (IM and Endo. Dz.)	8E-1, 8E-2, 8E-3		1:30	Lemo N.	P_klinike
07/03/2025	8:15	9:00	p05 Dermatology 4 (Inflammatory Dz.)	8E-1, 8E-2, 8E-3		0:45	Lemo N.	P_klinike
07/03/2025	9:00	9:45	p05 Dermatology 5 (Large animals)	8E-1, 8E-2, 8E-3		0:45	Lemo N.	P_klinike
14/03/2025	8:15	9:45	p06 Neurology 1 (Symptoms. Vestibular)	8E-1, 8E-2, 8E-3		1:30	Kiš I.	P_farmakologija
17/03/2025	10:00	11:30	v01 Skills lab	8E-3		1:30	Nastavnici na predmetu	V_interna
17/03/2025	12:00	13:30	v01 Skills lab	8E-2		1:30	Nastavnici na predmetu	V_interna
17/03/2025	14:00	15:30	v01 Skills lab	8E-1		1:30	Nastavnici na predmetu	V_interna
18/03/2025	14:00	15:30	p07 Neurology 2 (Seizures)	8E-1, 8E-2, 8E-3		1:30	Kiš I.	P_fiziologija
19/03/2025	14:00	14:45	p08 Neurologija 3 (SRMA)	8E-1, 8E-2, 8E-3		0:45		P_klinike
19/03/2025	14:45	15:30	p09 Endocrinology 1 (D. insipidus)	8E-1, 8E-2, 8E-3		0:45	Kučer N.	P_klinike
20/03/2025	9:00	15:00	v02 Clinical Practicals 1	8E-3		6:00	Nastavnici na predmetu	V_interna



Activities - Internal Medicine II (2/4)								
Start Date	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
21/03/2025	9:00	15:00	v03 Clinical Practicals 2	8E-3		6:00	Nastavnici na predmetu	V_interna
24/03/2025	11:30	13:45	s01 Seminar 1	8E-1, 8E-2, 8E-3		2:15		P_klinike
25/03/2025	9:00	15:00	v04 Clinical Practicals 3	8E-3		6:00	Nastavnici na predmetu	V_interna
26/03/2025	12:45	15:00	s02 Seminar 2	8E-1, 8E-2, 8E-3		2:15		P_klinike
01/04/2025	10:00	12:15	s03 Seminar 3	8E-1, 8E-2, 8E-3		2:15		P_klinike
02/04/2025	8:15	9:45	p09 Neurology 5 (Myasthenia. PNS. Spinal)	8E-1, 8E-2, 8E-3		1:30	Kiš I.	P_fizika
03/04/2025	9:00	15:00	v05 Clinical Practicals 4	8E-3		6:00	Nastavnici na predmetu	V_interna
04/04/2025	9:00	15:00	v06 Clinical Practicals 5	8E-3		6:00	Nastavnici na predmetu	V_interna
07/04/2025	8:15	9:45	p10 Endocrinology 2 (Adrenals)	8E-1, 8E-2, 8E-3		1:30	Matijatko V.	P_kemija
15/04/2025	9:00	15:00	v02 Clinical Practicals 1	8E-1		6:00	Nastavnici na predmetu	V_interna
16/04/2025	9:00	15:00	v03 Clinical Practicals 2	8E-1		6:00	Nastavnici na predmetu	V_interna
22/04/2025	14:15	15:00	p11 Endocrinology 3 (D. mellitus)	8E-1, 8E-2, 8E-3		0:45	Matijatko V.	P_klinike
22/04/2025	15:00	15:45	p11 Endocrinology 4 (Complication of DM)	8E-1, 8E-2, 8E-3		0:45	Kučer N.	P_klinike
23/04/2025	9:00	15:00	v04 Clinical Practicals 3	8E-1		6:00	Nastavnici na predmetu	V_interna



Activities - Internal Medicine II (3/4)								
Start Date	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
24/04/2025	9:00	15:00	v05 Clinical Practicals 4	8E-1		6:00	Nastavnici na predmetu	V_interna
25/04/2025	9:00	15:00	v06 Clinical Practicals 5	8E-1		6:00	Nastavnici na predmetu	V_interna
05/05/2025	8:00	14:00	v02 Clinical Practicals 1	8E-2		6:00	Nastavnici na predmetu	V_interna
06/05/2025	8:15	9:00	p12 Endocrinology 5 (Thyroids)	8E-1, 8E-2, 8E-3		0:45	Kučer N.	P_klinike
06/05/2025	9:00	9:45	p12 Endocrinology 6 (Horm. active)	8E-1, 8E-2, 8E-3		0:45	Brkljačić M.	P_klinike
07/05/2025	9:45	10:30	p13 Endocrinology 7 (Equine)	8E-1, 8E-2, 8E-3		0:45	Gotić J.	P_klinike
07/05/2025	10:30	11:15	p14 Large Animal Neurology	8E-1, 8E-2, 8E-3		0:45	Kiš I.	P_klinike
08/05/2025	9:00	15:00	v03 Clinical Practicals 2	8E-2		6:00	Nastavnici na predmetu	V_interna
12/05/2025	14:30	15:15	p15 Rabbit Medicine	8E-1, 8E-2, 8E-3		0:45	Brkljačić M.	P_klinike
12/05/2025	15:15	16:00	p15 V Emerg Med	8E-1, 8E-2, 8E-3		0:45	Kiš I.	P_klinike
16/05/2025	9:00	15:00	v04 Clinical Practicals 3	8E-2		6:00	Nastavnici na predmetu	V_interna
23/05/2025	8:00	8:45	p16 V Crit Care	8E-1, 8E-2, 8E-3		0:45	Matijatko V.	P_klinike
23/05/2025	8:45	9:30	p17 Ferret Dz.	8E-1, 8E-2, 8E-3		0:45	Matijatko V.	P_klinike
23/05/2025	9:45	10:30	p18 Equine Myopathies	8E-1, 8E-2, 8E-3		0:45	Gotić J.	P_klinike
26/05/2025	9:00	15:00	v05 Clinical Practicals 4	8E-2		6:00	Nastavnici na predmetu	V_interna
03/06/2025	9:00	15:00	v06 Clinical Practicals 5	8E-2		6:00	Nastavnici na predmetu	V_interna



Activities - Internal Medicine II (4/4)								
Start Date	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
Total: 44						124:30		

Total: 44	124:30
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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 University 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: a student can justifiably be absent from up to 50% of the lectures; 30% of the seminars and 30% of the exercises.

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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.
Final exams (dates)	17/03/2025, 20/05/2025, 30/06/2025, 11/07/2025, 03/09/2025, 12/09/2025.
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.

Internal Medicine

OBJECTIVES AND LEARNING OUTCOMES

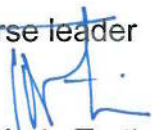
Course objectives	Diagnosis and treatment of the diseases of digestive, cardiovascular, respiratory, and urinary system, as well as diagnosis and treatment of neurologic, endocrinological, hematopoetic, neoplastic, dermatological diseases in different species of domestic animals. Basics of emergency and critical care medicine.
Learning outcomes	During studying internal medicine students acquire and consolidate their medical logics based on medical premises gained in study of preclinical subjects. Such an approach enables forming of experts disposed to new knowledge and independent on stereotypes. Upon acquisition of course content a student can examine the patient, notice disease symptoms, establish a diagnosis, confirm it by proper laboratory tests and finally determine the proper treatment of disease within the internal medicine at the level of generally veterinary medicine. Therefore, a student is well prepared and trained to take part in attending the further clinical courses as well as those belonging to public health.

Course: Internal Medicine

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. Marin Torti, PhD, DVM

Head of organizational unit



Assoc. Prof. Iva Šmit, PhD, DVM

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