

UNIVERSITY OF ZAGREB
 FACULTY OF VETERINARY MEDICINE
 Heinzelova 55
 Tel. 01/23 90 350
 Division: Clinic Division
 Department/Clinic: Clinic for Internal Diseases
 Email: mtorti@vef.unizg.hr
 Register no.:
 File no.:
 Zagreb, 04/09/2024



190873	REPUBLIKA HRVATSKA		
Veterinarski fakultet u Zagrebu			
Primljeno:	10.09.2024		
Klasifikacijska oznaka		Org. jed.	
602-04/24-22/38		251-61-41; 251-61-32;	
Urudžbeni broj		Prilozi	Vrijednost
251-61-20-24-70		0	-

COURSE SYLLABUS

Course name: Internal Medicine

Academic year 2024-2025

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

Deputy Course leader: Assist. 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. Ivana Kiš, PhD, DVM, Assoc. Prof. Iva Šmit, PhD, DVM, Assoc. Prof. Marin Torti, PhD, DVM, Assist. Prof. Darko Grden, PhD, DVM, Assist. Prof. Jelena Gotić, PhD, DVM.

Associate teachers: Ines Jović, PhD, DVM, Gabrijela Jukrić, PhD, DVM, Tea Dodig, DVM, Maša Efendić, PhD, DVM, Filip Kajin, DVM, Elizabeta Pongrac, DVM

First day of classes: 01/10/2024

Activities - Internal Medicine I (1/5)								
Start Date	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
01/10/2024	10:00	11:30	p01 Introduction. Hematology I	7E-1, 7E-2, 7E-3		1:30	Torti M., Šmit I.	P_farmakologija
01/10/2024	11:45	13:15	p02 Hematology II	7E-1, 7E-2, 7E-3		1:30	Šmit I.	P_fiziologija
02/10/2024	10:00	11:30	p03 Hematology III	7E-1, 7E-2, 7E-3		1:30	Brkljačić M., Crnogaj M.	P_farmakologija
03/10/2024	10:00	11:30	p04 Biochem. interpretation. Immune-mediated dz	7E-1, 7E-2, 7E-3		1:30	Brkljačić M., Šmit I.	P_klinike FIZIKA
04/10/2024	8:00	14:00	v01 Clinical practice 1	7E-1		6:00	Nastavnici na predmetu	V_interna
04/10/2024	8:00	14:00	v01 Clinical practice 1	7E-3		6:00	Nastavnici na predmetu	V_interna 2
07/10/2024	8:00	14:00	v02 Clinical practice 2	7E-1		6:00	Nastavnici na predmetu	V_interna
07/10/2024	8:00	14:00	v02 Clinical practice 2	7E-3		6:00	Nastavnici na predmetu	V_interna
08/10/2024	8:00	14:00	v03 Clinical practice 3	7E-1		6:00	Nastavnici na predmetu	V_interna
08/10/2024	8:00	14:00	v03 Clinical practice 3	7E-3		6:00	Nastavnici na predmetu	V_interna
09/10/2024	8:00	14:00	v04 Clinical practice 4	7E-1		6:00	Nastavnici na predmetu	V_interna
09/10/2024	8:00	14:00	v04 Clinical practice 4	7E-3		6:00	Nastavnici na predmetu	V_interna
10/10/2024	8:00	14:00	v05 Clinical practice 5	7E-1		6:00	Nastavnici na predmetu	V_interna

Activities - Internal Medicine I (2/5)								
Start Date	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
10/10/2024	8:00	14:00	v05 Clinical practice 5	7E-3		6:00	Nastavnici na predmetu	V_interna
11/10/2024	8:00	14:00	v06 Clinical practice 6	7E-1		6:00	Nastavnici na predmetu	V_interna 2
11/10/2024	8:00	14:00	v06 Clinical practice 6	7E-3		6:00	Nastavnici na predmetu	V_interna 2
14/10/2024	8:00	14:00	v07 Clinical practice 7	7E-1		6:00	Nastavnici na predmetu	V_interna 2
14/10/2024	8:00	14:00	v07 Clinical practice 7	7E-3		6:00	Nastavnici na predmetu	V_interna 2
15/10/2024	8:15	9:45	p05 Sepsis. Vet. emerg. med. I	7E-1, 7E-2, 7E-3		1:30	Gotić J.	P_farmakologija
15/10/2024	11:45	13:15	p06 Vet. emerg. med. II	7E-1, 7E-2, 7E-3		1:30	Matijatko V.	P_klinike
16/10/2024	10:00	11:30	p07 GI symptomatology. Upper GI dz.	7E-1, 7E-2, 7E-3		1:30	Šmit I.	P_fiziologija
16/10/2024	13:00	14:30	p08 Lower GI dz.	7E-1, 7E-2, 7E-3		1:30		P_kemija
16/10/2024	16:00	18:00	v08 Clinical practice 1	7E-1		2:00	Nastavnici na predmetu	V_interna
17/10/2024	8:15	9:45	p09 GDV, gastritis, gastric ulcer	7E-1, 7E-2, 7E-3		1:30	Crnogaj M.	P_fiziologija
17/10/2024	11:45	13:15	p10 Liver and pancreas dz.	7E-1, 7E-2, 7E-3		1:30	Crnogaj M., Kiš I.	P_klinike
17/10/2024	16:00	18:00	v09 Clinical practice 2	7E-1		2:00	Nastavnici na predmetu	V_interna
18/10/2024	8:15	9:45	p11 Upper resp. dz.	7E-1, 7E-2, 7E-3		1:30	Crnogaj M.	P_klinike

Activities - Internal Medicine I (3/5)								
Start Date	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
18/10/2024	14:15	15:45	p12 Pneumothorax, effusions. Pneumonias	7E-1, 7E-2, 7E-3		1:30	Matijatko V., Torti M.	P_kemija
18/10/2024	16:00	18:00	v10 Clinical practice 3	7E-1		2:00	Nastavnici na predmetu	V_interna
22/10/2024	8:15	9:45	p13 Bronchitis, feline asthma. Equine asthma	7E-1, 7E-2, 7E-3		1:30	Grden D., Torti M.	P_fiziologija
22/10/2024	11:45	13:15	p14 CV symptoms, pericardial dz., PulHyp	7E-1, 7E-2, 7E-3		1:30	Torti M.	P_fiziologija
24/10/2024	10:00	11:30	p15 Cong. heart dz. Valve dz.	7E-1, 7E-2, 7E-3		1:30	Torti M.	P_klinike
24/10/2024	14:00	15:30	p16 Arrhythmias	7E-1, 7E-2, 7E-3		1:30	Torti M.	P_klinike
25/10/2024	9:00	10:30	p17 Cardiomyopathies. Equine cardiol.	7E-1, 7E-2, 7E-3		1:30	Torti M.	P_klinike
28/10/2024	11:15	12:45	p18 AKI. FLUTD.	7E-1, 7E-2, 7E-3		1:30	Kiš I.	P_klinike
28/10/2024	16:00	18:00	v08 Clinical practice 1	7E-3		2:00	Nastavnici na predmetu	V_interna
29/10/2024	10:15	11:45	p19 CRF. Lower UT dz.	7E-1, 7E-2, 7E-3		1:30	Crnogaj M.	P_klinike
29/10/2024	16:00	18:00	v09 Clinical practice 2	7E-3		2:00	Nastavnici na predmetu	V_interna
30/10/2024	8:00	9:30	p20 Oncology I	7E-1, 7E-2, 7E-3		1:30	Brkljačić M., Kučer N.	P_fizika
30/10/2024	13:15	14:45	p21 Oncology II	7E-1, 7E-2, 7E-3		1:30	Kučer N.	P_fizika
30/10/2024	16:00	18:00	v10 Clinical practice 3	7E-3		2:00	Nastavnici na predmetu	V_interna
04/11/2024	8:15	9:45	p22 Oncology III. Equine urinary tract	7E-1, 7E-2, 7E-3		1:30	Kučer N.	P_fizika

Activities - Internal Medicine I (4/5)								
Start Date	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
04/11/2024	14:30	16:00	p23 Equine gastric dz. Myopathies	7E-1, 7E-2, 7E-3		1:30	Grden D., Kučer N.	P_klinike
05/11/2024	9:00	10:30	p24 Equine colic I	7E-1, 7E-2, 7E-3		1:30	Gotić J.	P_klinike
05/11/2024	14:30	16:00	p25 Equine colic II	7E-1, 7E-2, 7E-3		1:30	Gotić J.	P_klinike
06/11/2024	11:00	12:30	p26 Ruminants I	7E-1, 7E-2, 7E-3		1:30	Gračner D.	P_klinike
07/11/2024	9:00	10:30	p27 Ruminants II	7E-1, 7E-2, 7E-3		1:30	Gračner D.	P_klinike
07/11/2024	12:45	14:15	p28 Ruminants III	7E-1, 7E-2, 7E-3		1:30	Gračner D.	P_klinike
08/11/2024	9:15	10:45	p29 Ruminants IV	7E-1, 7E-2, 7E-3		1:30	Gračner D.	P_klinike
08/11/2024	13:30	15:00	p30 Hypoglycemia, -magnesemia. Trace elements.	7E-1, 7E-2, 7E-3		1:30	Gračner D., Grden D.	P_klinike
19/11/2024	8:00	14:00	v01 Clinical practice 1	7E-2		6:00	Nastavnici na predmetu	V_interna 2
20/11/2024	8:00	14:00	v02 Clinical practice 2	7E-2		6:00	Nastavnici na predmetu	V_interna
21/11/2024	8:00	14:00	v03 Clinical practice 3	7E-2		6:00	Nastavnici na predmetu	V_interna
22/11/2024	8:00	14:00	v04 Clinical practice 4	7E-2		6:00	Nastavnici na predmetu	V_interna
25/11/2024	8:00	14:00	v05 Clinical practice 5	7E-2		6:00	Nastavnici na predmetu	V_interna
26/11/2024	8:00	14:00	v06 Clinical practice 6	7E-2		6:00	Nastavnici na predmetu	V_interna 2
27/11/2024	8:00	14:00	v07 Clinical practice 7	7E-2		6:00	Nastavnici na predmetu	V_interna 2

Activities - Internal Medicine I (5/5)								
Start Date	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
27/11/2024	16:00	18:00	v08 Clinical practice 1	7E-2		2:00	Nastavnici na predmetu	V_interna
28/11/2024	16:00	18:00	v09 Clinical practice 2	7E-2		2:00	Nastavnici na predmetu	V_interna
29/11/2024	16:00	18:00	v10 Clinical practice 3	7E-2		2:00	Nastavnici na predmetu	V_interna
Total: 60						189:00		

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.
Seminar 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 (2023). 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)	The students will have 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: 20/11/2024, 03/12/2024, 11/12/2024, 18/12/2024.
Final exams (dates)	04/12/2024, 12/02/2025, 19/02/2025.
Form of final exam	Written exam and oral exam following passed written exam.

LITERATURE

Obligatory literature	Lecture handouts via the LMS. Selected chapters from: 1. Textbook of Veterinary Internal Medicine Expert Consult, 8th Edition by Stephen J. Ettinger, DVM, DACVIM, Edward C. Feldman, DVM, DACVIM and Etienne Cote, DVM, DACVIM. 2. Small Animal Internal Medicine, 5th Edition by Richard W. Nelson, DVM and C. Guillermo Couto, DVM. 3. Textbook of the diseases of cattle, horses, sheep, pugs and goats. 10th Edition by Radostits C. M., Gay, O. M. 4. Large Animal Internal Medicine, 6th Edition by Bradford Smith, David Van Metre, Nicola Pusterla.
Optional literature	1. Textbook of Veterinary Internal Medicine Expert Consult, 8th Edition by Stephen J. Ettinger, DVM, DACVIM, Edward C. Feldman, DVM, DACVIM and Etienne Cote, DVM, DACVIM. 2. Small Animal Internal Medicine, 5th Edition by Richard W. Nelson, DVM and C. Guillermo Couto, DVM. 3. A Textbook of the diseases of cattle, horses, sheep, pigs and goats 10th Edition by Radostits CM DVM MSc MRCVS Dipl ACVIM, Otto M. Gay DVM, MVSc, Hon. DVSc, FAcVSc, Hon, Diplomate ACVIM. 4. Large Animal Internal Medicine, 6th Edition by Bradford Smith, David Van Metre, Nicola Pusterla.

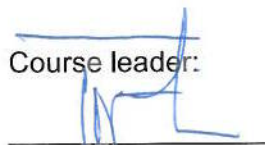
OBJECTIVES AND LEARNING OUTCOMES

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)
60-68	2 (E)
69-76	2 (D)
77-84	3 (C)
85-92	4 (B)
93-100	5 (A)

Course leader:



Head of Department/Clinic:



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	3	6
Seminar attendance	1	2
Practicals attendance	8	10
Active participation in seminars and practicals	5	10
Continuous knowledge checking (mid-terms)	20	32
Final exam	24	40
TOTAL	60	100

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

Type of activity	Minimum number of points	Maximum number of points
Lecture attendance	3	6
Practicals attendance	8	12
Active participation in practicals	5	10
Continuous knowledge checking (mid-terms)	20	32
Final exam	24	40
TOTAL	60	100

**GRADING AND EVALUATION OF STUDENT WORK ON COURSES WITH SEMINARS and
EXERCISES**

Type of activity	Minimum number of points	Maximum number of points
Seminar / practicals attendance	11	18
Active participation in seminars and practicals	5	10
Continuous knowledge checking (mid-terms)	20	32
Final exam	24	40
TOTAL	60	100