

UNIVERSITY OF ZAGREB
FACULTY OF VETERINARY MEDICINE
Heinzlova 55
Tel. 01/ 2390 401
Division: Clinical
Organizational unit: Radiology, Ultrasound Diagnostic and Physical Therapy
E-mail of the course leader: zoran.vrbnac@vef.unizg.hr
Register No of the organisational unit: 61-15-37-25
Zagreb, 2/14/2025



198269	REPUBLIKA HRVATSKA		
Veterinarski fakultet u Zagrebu			
Primljeno:	14.02.2025		
Klasifikacijska oznaka	Org. jed.		
602-04/24-22/38	251-61-41;251-61-32;		
Uredbeni broj	Prilozi	Vrijednost	
251-61-15-25-172	0	-	

COURSE SYLLABUS

METHODS OF PHYSICAL THERAPY AND DIAGNOSTICS

Academic year 2024/2025

Course leader: Assoc. Prof. Zoran Vrbnac, PhD, DACVSMR, DECVSMR

Deputy course leader: Assoc. Prof. Hrvoje Capak, PhD

Teachers:

Assoc. Prof. Zoran Vrbnac, DVM, PhD, DACVSMR, DECVSMR

Assoc. Prof. Hrvoje Capak, PhD

Ana Javor, DVM, Assistant

Barbara Mratović, DVM, Assistant

First day of classes: 3/5/2025

Last day of classes: 5/9/2025

Activities - Methods of Physical Therapy and Diagnostics (1/2)

Start Date	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
05/03/2025	13:30	15:00	p01 Introduction	8E-1, 8E-2, 8E-3		1:30	Vrbanac Z.	P_fizika
07/03/2025	12:30	14:00	p02 Thermotherapy	8E-1, 8E-2, 8E-3		1:30	Capak H.	P_fiziologija
13/03/2025	13:15	14:45	p03 Ultrasound	8E-1, 8E-2, 8E-3		1:30	Capak H.	P_fizika
17/03/2025	8:00	9:30	p04 Laser	8E-1, 8E-2, 8E-3, P_rendgen		1:30	Vrbanac Z.	P_fizika
27/03/2025	15:00	16:30	p05 Hydrotherapy	8E-1, 8E-2, 8E-3, P_rendgen		1:30	Vrbanac Z.	P_fizika
02/04/2025	13:45	16:00	v01 Thermotherapy, clinical cases	8E-1, 8E-2		2:15	Nastavnici na predmetu	V_rendgen
07/04/2025	11:45	13:15	p06 Electrotherapy	8E-1, 8E-2, 8E-3		1:30	Vrbanac Z.	P_fiziologija
07/04/2025	13:30	15:45	v01 Thermotherapy, clinical cases	8E-3		2:15	Nastavnici na predmetu	V_rendgen
08/04/2025	13:30	15:00	p07 Therapeutic exercises	8E-1, 8E-2, 8E-3		1:30	Vrbanac Z.	P_klinike
08/04/2025	15:00	15:45	p08 Phototherapy	8E-1, 8E-2, 8E-3		0:45	Capak H.	P_klinike
10/04/2025	12:00	14:15	v02 Electrotherapy, clinical cases	8E-1, 8E-2		2:15	Nastavnici na predmetu	V_rendgen
11/04/2025	9:30	11:45	v02 Electrotherapy, clinical cases	8E-3		2:15	Nastavnici na predmetu	V_rendgen
14/04/2025	8:30	10:45	v03 Therapeutic Ultrasound, clinical cases	8E-1, 8E-2		2:15	Nastavnici na predmetu	P_rendgen
25/04/2025	8:30	10:45	v03 Therapeutic Ultrasound, clinical cases	8E-3		2:15	Nastavnici na predmetu	P_rendgen
05/05/2025	8:15	10:30	v04 Hydrotherapy, clinical cases	8E-3		2:15	Nastavnici na predmetu	P_rendgen

Activities - Methods of Physical Therapy and Diagnostics (2/2)								
Start Date	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
06/05/2025	10:15	12:30	v04 Hydrotherapy, clinical cases	8E-1, 8E-2		2:15	Nastavnici na predmetu	P_rendgen
08/05/2025	10:00	12:15	v05 Diagnostic ultrasound, clinical cases	8E-3		2:15	Nastavnici na predmetu	P_rendgen
09/05/2025	12:45	15:00	v05 Diagnostic ultrasound, clinical cases	8E-1, 8E-2		2:15	Nastavnici na predmetu	P_rendgen
Total: 18						33:45		

Activities - Methods of Physical Therapy and Diagnostics (2/2)								
Start Date	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
06/05/2025	10:15	12:30	v04 Hydrotherapy, clinical cases	8E-1, 8E-2		2:15	Nastavnici na predmetu	P_rendgen
08/05/2025	10:00	12:15	v05 Diagnostic ultrasound, clinical cases	8E-3		2:15	Nastavnici na predmetu	P_rendgen
09/05/2025	12:45	15:00	v05 Diagnostic ultrasound, clinical cases	8E-1, 8E-2		2:15	Nastavnici na predmetu	P_rendgen
Total: 18						33:45		

Timetable for LECTURES academic year 2024/2025

STUDENT OBLIGATIONS

Lecture attendance	Attending lectures 3-6 points (15 lecture hours, 1 lecture hour is worth 0.4 point). A student must attend minimal 8 lecture hours
Seminars attendance	
Practicals attendance	Attending exercises 8-12 points (8 programmes, 1 programme (double period) is worth 1.6 points). A student must attend minimal 5 programmes.
Active participation in seminars and practicals	Participation at exercises 5-10 points – participation at exercise will be evaluated with short oral tests with 5 points at least two times.
Final exam	ORAL EXAM: 24-40 points (5 questions: 1 question is worth 8 points) To take the final exam a student must gain minimal 16 points from attending lectures and exercises and participation at exercises and minimal 20 points from continuous knowledge checking.
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. 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)	5/8/2025; 5/9/2025
Final exams (dates)	4/25/2025; 5/19/2025; 6/18/2025; 7/4/2025; 9/5/2025; 9/19/2025
Form of final exam	Oral exam

LITERATURE

Obligatory literature	MILLIS, D.L., D. LEVINE, R.A. TAYLOR (2014): Canine Rehabilitation and Physical Therapy. 2nd ed. Elsevier, Philadelphia.
Optional literature	BOCKSTAHLER, B. ET AL (2019): Essential Facts of Physical Medicine, Rehabilitation and Sports Medicine in Companion Animals. 1 st ed. VBS VetVerlag, Buchhandel und Seminar GmbH, Germany.

OBJECTIVES AND LEARNING OUTCOMES

Course objectives	The course objective is to explain the different forms of artificial and natural energy and its use in treatment and prophylaxis. Student will get acquainted with most frequently used physical therapy modalities as well as ultrasound diagnostic. The 4th year student will gain the insight in methods and modalities of physical therapy and diagnostic used in rehabilitation protocols.
Learning outcomes	1- to understand different methods of physical therapy and their effect on body systems 2- to apply and to determine the duration of the methods depending on clinical condition 3- to evaluate the outcome of physical therapy treatment 4- to interpret ultrasound image of different body system

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. Zoran Vrbanac, DVM, PhD, DACVSMR, DECVSMR

Head of organizational unit:



Assoc. Prof. Zoran Vrbanac, DVM, PhD, DACVSMR, DECVSMR

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