

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.vrbanac@vef.unizg.hr](mailto:zoran.vrbanac@vef.unizg.hr)  
Register No of the organisational unit: 61-15-17-24  
Zagreb, 1/24/2024



178067	REPUBLIKA HRVATSKA	
Veterinarski fakultet u Zagrebu		
Primljeno:	29.01.2024	
Klasifikacijska oznaka	Org. jed.	
605-03/23-04/28	251-61-32;251-61-41;	
Uredžbeni broj	Prilozi	Vrijednost
251-61-15-24-86	0	-

## COURSE SYLLABUS

### METHODS OF PHYSICAL THERAPY AND DIAGNOSTICS

Academic year 2023/2024

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

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

Teachers:

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

Assoc. Prof. Hrvoje Capak, PhD

Ana Javor, DVM, Assistant

Barbara Mratović, DVM, Assistant

Anita Kraljević, DVM

First day of classes: 2/27/2024

Last day of classes: 4/4/2024

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

	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
27/02/2024	10:00	11:30	p01 Introduction	8E-1, 8E-2, 8E-3		1:30	Vrbanac Z.	P_fizika
28/02/2024	10:00	11:30	p02 Thermotherapy	8E-1, 8E-2, 8E-3		1:30	Capak H.	P_mikrobiologija
29/02/2024	10:00	11:30	p03 Ultrasound	8E-1, 8E-2, 8E-3		1:30	Capak H.	P_fizika
01/03/2024	10:00	11:30	p04 Laser	8E-1, 8E-2, 8E-3, P_rendgen		1:30	Vrbanac Z.	P_fizika
04/03/2024	8:15	9:45	p05 Hydrotherapy	8E-1, 8E-2, 8E-3, P_rendgen		1:30	Vrbanac Z.	P_klinike
05/03/2024	8:15	10:30	v01 Thermotherapy, clinical cases	8E-1, 8E-2		2:15	Nastavnici na predmetu	V_rendgen
06/03/2024	8:15	10:30	v01 Thermotherapy, clinical cases	8E-3		2:15	Nastavnici na predmetu	V_rendgen
08/03/2024	10:00	12:15	v02 Electrotherapy, clinical cases	8E-1, 8E-2		2:15	Nastavnici na predmetu	V_rendgen
08/03/2024	13:00	15:15	v02 Electrotherapy, clinical cases	8E-3		2:15	Nastavnici na predmetu	V_rendgen
11/03/2024	7:35	9:05	p06 Electrotherapy	8E-1, 8E-2, 8E-3		1:30	Vrbanac Z.	P_fiziologija
14/03/2024	8:00	9:30	p07 Therapeutic exercises	8E-1, 8E-2, 8E-3		1:30	Vrbanac Z.	P_fizika
19/03/2024	9:30	11:45	v03 Therapeutic Ultrasound, clinical cases	8E-1, 8E-2		2:15	Nastavnici na predmetu	P_rendgen
20/03/2024	10:00	12:15	v03 Therapeutic Ultrasound, clinical cases	8E-3		2:15	Nastavnici na predmetu	P_rendgen
21/03/2024	9:15	10:00	p08 Phototherapy	8E-1, 8E-2, 8E-3		0:45	Capak H.	P_klinike
26/03/2024	12:45	15:00	v04 Hydrotherapy, clinical cases	8E-1, 8E-2		2:15	Nastavnici na predmetu	P_rendgen

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

	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
27/03/2024	9:30	11:45	v04 Hydrotherapy, clinical cases	8E-3		2:15	Nastavnici na predmetu	P_rendgen
03/04/2024	9:15	11:30	v05 Diagnostic ultrasound, clinical cases	8E-3		2:15	Nastavnici na predmetu	P_rendgen
04/04/2024	8:15	10:30	v05 Diagnostic ultrasound, clinical cases	8E-1, 8E-2		2:15	Nastavnici na predmetu	P_rendgen
<b>Total: 18</b>						<b>33:45</b>		

## Timetable for LECTURES academic year 2023/2024

### 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. <b>Regulations On Intergraduate And Graduate Studies, Article 41:</b> 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)	4/3/2024; 4/4/2024
Final exams (dates)	27.3.2024.; 6.5.2024.; 17.6.2024.; 8.7.2024.; 13.9.2024.; 23.9.2024.
Form of final exam	Oral exam

### LITERATURE

Obligatory literature	Millis, D.L., D. Levine, R.A. Taylor: Canine Rehabilitation and Physical Therapy. Second edition. Elsevier, Philadelphia, 2014
Optional literature	Bockstahler, B. et al: Essential Facts of Physical Medicine, Rehabilitation and Sports Medicine in Companion Animals. First edition. VBS VetVerlag, Buchhandel und Seminar GmbH, 2019

**OBJECTIVES AND LEARNING OUTCOMES**

<b>Course objectives</b>	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 4 <sup>th</sup> year student will gain the insight in methods and modalities of physical therapy and diagnostic used in rehabilitation protocols.
<b>Learning outcomes</b>	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)

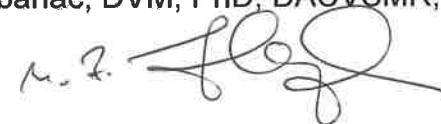
Course leader

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