

**UNIVERSITY OF ZAGREB
FACULTY OF VETERINARY MEDICINE**

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Register no.: 61-15-17-21

Zagreb, 27th January 2021



117322	REPUBLIKA HRVATSKA	
Veterinarski fakultet u Zagrebu		
Primljeno:	03.02.2021	
Klasifikacijska oznaka	Org. jed.	
605-03/20-04/25	251-61-09;251-61-32;	
Urudžbeni broj	Prilozi	Vrijednost
251-61-15-21-68	0	-

COURSE SYLLABUS

Course name: **METHODS OF PHYSICAL THERAPY AND DIAGNOSTICS**

Academic year 2020-21

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

Teachers: Prof. Damir Stanin, MSc, PhD
 Assist. Prof. Hrvoje Capak, PhD
 Assist. Prof. Zoran Vrbanac, PhD, DACVSMR, DECVSMR
 Tomislav Bureš, DVM, Assistant

Associate teachers:

First day of classes: 23/2/2021

Last day of classes: 22/3/2021

Timetable for LECTURES academic year 2020-2021

LECTURES				
Date	Methodological unit	Teacher	Location / time	Literature
23/2/2021	Introduction and overview of physical therapy	Assist. Prof. Zoran Vrbanac, PhD, DACVSMR, DECVSMR	Department of Radiology, Ultrasound Diagnostic and Physical Therapy 12-14	Millis, D.L., D. Levine, R.A. Taylor: Canine Rehabilitation and Physical Therapy. Second edition. Elsevier, Philadelphia, 2014
24/2/2021	Physiological effect of warmth and cold application	Assist. Prof. Hrvoje Capak, PhD	Department of Radiology, Ultrasound Diagnostic and Physical Therapy 12-14	Millis, D.L., D. Levine, R.A. Taylor: Canine Rehabilitation and Physical Therapy. Second edition. Elsevier, Philadelphia, 2014
25/2/2021	Diagnostic ultrasound	Assist. Prof. Hrvoje Capak, PhD	Department of Radiology, Ultrasound Diagnostic and Physical Therapy 10-12	Millis, D.L., D. Levine, R.A. Taylor: Canine Rehabilitation and Physical Therapy. Second edition. Elsevier, Philadelphia, 2014
26/2/2021	Therapeutic ultrasound Laser therapy	Assist. Prof. Zoran Vrbanac, PhD, DACVSMR, DECVSMR	Department of Radiology, Ultrasound Diagnostic and Physical Therapy 10-12	Millis, D.L., D. Levine, R.A. Taylor: Canine Rehabilitation and Physical Therapy. Second edition. Elsevier, Philadelphia, 2014
04/3/2021	Hydrotherapy	Assist. Prof. Zoran Vrbanac, PhD, DACVSMR, DECVSMR	Department of Radiology, Ultrasound Diagnostic and Physical Therapy 8-10	Millis, D.L., D. Levine, R.A. Taylor: Canine Rehabilitation and Physical Therapy. Second edition. Elsevier, Philadelphia, 2014
08/3/2021	Electrical stimulation Electrotherapy – low and high frequency currents	Assist. Prof. Zoran Vrbanac, PhD, DACVSMR, DECVSMR	Department of Radiology, Ultrasound Diagnostic and Physical Therapy 12-14	Millis, D.L., D. Levine, R.A. Taylor: Canine Rehabilitation and Physical Therapy. Second edition. Elsevier, Philadelphia, 2014
12/3/2021	Therapeutic exercises and manual therapy	Assist. Prof. Zoran Vrbanac, PhD, DACVSMR, DECVSMR	Department of Radiology, Ultrasound Diagnostic and Physical Therapy 12-14	Millis, D.L., D. Levine, R.A. Taylor: Canine Rehabilitation and Physical Therapy. Second edition. Elsevier, Philadelphia, 2014
16/3/2021	Phototherapy – heliotherapy	Assist. Prof. Hrvoje Capak, PhD	Department of Radiology, Ultrasound Diagnostic and Physical Therapy 9-10	Millis, D.L., D. Levine, R.A. Taylor: Canine Rehabilitation and Physical Therapy. Second edition. Elsevier, Philadelphia, 2014

Timetable for SEMINARS academic year 2020-2021

SEMINARS					
Date	Methodological unit	Teacher	Group	Location / time	Literature

Timetable for PRACTICALS academic year 2020-2021

PRACTICALS						
Date	Methodological unit	Teacher	Type of practical	Group	Location / time	Literature
2/3/2021	Introduction Thermotherapy Manual therapy, clinical cases, practical	Course teachers	Special Clinical		Department of Radiology, Ultrasound Diagnostic and Physical Therapy 8-11	Millis, D.L., D. Levine, R.A. Taylor: Canine Rehabilitation and Physical Therapy. Second edition. Elsevier, Philadelphia, 2014
10/3/2021	Electrotherapy – low and high frequency currents, clinical cases, practical	Course teachers	Special Clinical		Department of Radiology, Ultrasound Diagnostic and Physical Therapy 11-14	Millis, D.L., D. Levine, R.A. Taylor: Canine Rehabilitation and Physical Therapy. Second edition. Elsevier, Philadelphia, 2014
18/3/2021	Therapeutic ultrasound, Laser, Clinical cases , practical	Course teachers	Special Clinical		Department of Radiology, Ultrasound Diagnostic and Physical Therapy 13-16	Millis, D.L., D. Levine, R.A. Taylor: Canine Rehabilitation and Physical Therapy. Second edition. Elsevier, Philadelphia, 2014
19/3/2021	Hydrotherapy, Therapeutic exercises, clinical cases, practical	Course teachers	Special Clinical		Department of Radiology, Ultrasound Diagnostic and Physical Therapy 8-11	Millis, D.L., D. Levine, R.A. Taylor: Canine Rehabilitation and Physical Therapy. Second edition. Elsevier, Philadelphia, 2014
22/3/2021	Diagnostic Ultrasound, clinical cases, 1. + 2. Preliminary exam	Course teachers	Special Clinical		Department of Radiology, Ultrasound Diagnostic and Physical Therapy 8-10.30	Millis, D.L., D. Levine, R.A. Taylor: Canine Rehabilitation and Physical Therapy. Second edition. Elsevier, Philadelphia, 2014

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. Given the above, the student must acquire a minimum number of points from all assessment elements in order to take the final exam. Article 45: 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)	Continuous knowledge checking 20-32 points 1 st preliminary exam (10 questions) 10 points min. – 16 points max. (1 question is worth 1.6 points) 2 nd preliminary exam (10 questions) 10 points min. – 16 points max. (1 question is worth 1.6 points) Online test
Final exams (dates)	25.03.2021.; 22.04.2021.; 12.05.2021.; 14.06.2021.; 28.06.2021.; 02.09.2021.; 16.09.2021.; 23.09.2021.
Form of final exam	Oral

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


Course objectives	The course objective is to explain the different forms of artificial and natural energy and its use in treatment and
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	prophylaxis. Student will get acquainted with most frequently used physical therapy modalities as well as ultrasound diagnostic. The 4 th 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

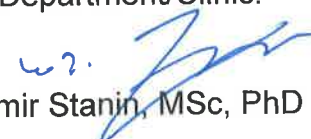
GRADING SCHEME

<i>Points</i>	<i>Grade</i>
Up to 59	1 (F)
60-68	2 (E)
69-76	2 (D)
77-84	3 (C)
85-92	4 (B)
93-100	5 (A)

Course leader:


Assist. Prof. Zoran Vrbanac, PhD, DACVSMR, DECVSMR

Head of Department/Clinic:


Prof. Damir Stanin, MSc, PhD

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