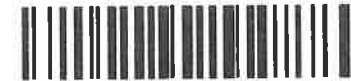


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Register no.: **61-15-201-25**

Zagreb, 05. September 2025



207065	REPUBLIKA HRVATSKA	
Veterinarski fakultet u Zagrebu		
Prilmljeno:	05.09.2025	
Klasifikacijska oznaka	Org. jed.	
602-04/25-22/34	251-61-41/281-61-32	
Uradžbeni broj	Prilozi	Vrijednost
251-61-15-25-52	0	-

## COURSE SYLLABUS

Course name: **GENERAL AND CLINICAL RADIOLOGY**

Academic year 2025-2026

**Course leader: Assoc. Prof. Hrvoje Capak, PhD**

Teachers: Assoc. Prof. Hrvoje Capak, PhD  
 Assoc. Prof. Zoran Vrbanac, PhD, DACVSMR, DECVSMR

Associate teachers: Ana Javor, DVM  
 Iva Lukša, DVM

**First day of classes:** 1. October 2025

**Last day of classes:** 12. December 2025

### Activities - General and Clinical Radiology (1/4)

Start Dat	Start	End	Subject	Subject	Group	Note	Length	Instructor	Room
01/10/2025	8:15	9:45	General and Clinical Radiology	p1 Introduction, X ray, CT machines	7E-1, 7E-2, 7E-3		1:30	Capak H.	P_kemija
08/10/2025	14:15	15:45	General and Clinical Radiology	p5 Radiology of cardiovascular system	7E-1, 7E-2, 7E-3		1:30	Capak H.	P_fiziologija
13/10/2025	13:30	15:00	General and Clinical Radiology	p6 Radiology of gastrointestinal system	7E-1, 7E-2, 7E-3		1:30	Capak H.	P_fiziologija
21/10/2025	9:00	10:30	General and Clinical Radiology	p2 Radiology of skeletal system 1	7E-1, 7E-2, 7E-3		1:30	Vrbanac Z.	P_fiziologija
21/10/2025	10:30	12:00	General and Clinical Radiology	p3 Radiology of skeletal system 2 joints	7E-1, 7E-2, 7E-3		1:30	Vrbanac Z.	P_fiziologija
22/10/2025	12:00	13:30	General and Clinical Radiology	v1 Introduction, X ray, CT devices	7E-3		1:30	Nastavnici na predmetu	V_rendgen
22/10/2025	14:00	15:30	General and Clinical Radiology	v1 Introduction, X ray, CT devices	7E-1		1:30	Nastavnici na predmetu	V_rendgen
24/10/2025	12:00	13:30	General and Clinical Radiology	v1 Introduction, X ray, CT devices	7E-2		1:30	Nastavnici na predmetu	V_rendgen
29/10/2025	11:15	14:15	General and Clinical Radiology	v2 Introduction 2 - positioning techniques	7E-3		3:00	Nastavnici na predmetu	V_rendgen
29/10/2025	14:30	16:00	General and Clinical Radiology	p4 Radiology of respiratory system	7E-1, 7E-2, 7E-3		1:30	Vrbanac Z.	P_klinike
30/10/2025	10:15	11:45	General and Clinical Radiology	p7 Radiology of urogenital system	7E-1, 7E-2, 7E-3		1:30	Capak H.	P_klinike

### Activities - General and Clinical Radiology (2/4)

Start Dat	Start	End	Subject	Subject	Group	Note	Length	Instructor	Room
31/10/2025	8:00	11:00	General and Clinical Radiology	v2 Introduction 2 - positioning techniques	7E-1		3:00	Nastavnici na predmetu	V_rendgen
03/11/2025	11:15	14:15	General and Clinical Radiology	v2 Introduction 2 - positioning techniques	7E-2		3:00	Nastavnici na predmetu	V_rendgen
04/11/2025	12:00	15:00	General and Clinical Radiology	v3 R Locomotor system 1	7E-2		3:00	Nastavnici na predmetu	V_rendgen
06/11/2025	10:30	13:30	General and Clinical Radiology	v3 R Locomotor system 1	7E-1		3:00	Nastavnici na predmetu	V_rendgen
07/11/2025	9:00	12:00	General and Clinical Radiology	v3 R Locomotor system 1	7E-3		3:00	Nastavnici na predmetu	V_rendgen
11/11/2025	8:15	11:15	General and Clinical Radiology	v4 R Locomotor system 2 - joints, spine	7E-1		3:00	Nastavnici na predmetu	V_rendgen
20/11/2025	8:30	11:30	General and Clinical Radiology	v4 R Locomotor system 2 - joints, spine	7E-3		3:00	Nastavnici na predmetu	V_rendgen
20/11/2025	12:00	15:00	General and Clinical Radiology	v4 R Locomotor system 2 - joints, spine	7E-2		3:00	Nastavnici na predmetu	V_rendgen
26/11/2025	9:00	9:45	General and Clinical Radiology	p8 Equine and farm animal radiology	7E-1, 7E-2, 7E-3		0:45	Capak H.	P_klinike
27/11/2025	8:15	11:15	General and Clinical Radiology	v5 R Respiratory system, Coll 1	7E-3		3:00	Nastavnici na predmetu	V_rendgen

### Activities - General and Clinical Radiology (3/4)

Start Dat	Start	End	Subject	Subject	Group	Note	Length	Instructor	Room
28/11/2025	8:15	11:15	General and Clinical Radiology	v5 R Respiratory system, Coll 1	7E-1		3:00	Nastavnici na predmetu	V_rendgen
01/12/2025	11:30	14:30	General and Clinical Radiology	v5 R Respiratory system, Coll 1	7E-2		3:00	Nastavnici na predmetu	V_rendgen
02/12/2025	11:30	14:30	General and Clinical Radiology	v6 R Cardiovascular system	7E-1		3:00	Nastavnici na predmetu	V_rendgen
03/12/2025	11:30	14:30	General and Clinical Radiology	v6 R Cardiovascular system	7E-2		3:00	Nastavnici na predmetu	V_rendgen
04/12/2025	11:30	14:30	General and Clinical Radiology	v6 R Cardiovascular system	7E-3		3:00	Nastavnici na predmetu	V_rendgen
05/12/2025	11:30	14:30	General and Clinical Radiology	v7 R Gastrointestinal system	7E-3		3:00	Nastavnici na predmetu	V_rendgen
08/12/2025	11:30	14:30	General and Clinical Radiology	v7 R Gastrointestinal system	7E-2		3:00	Nastavnici na predmetu	V_rendgen
09/12/2025	11:30	14:30	General and Clinical Radiology	v7 R Gastrointestinal system	7E-1		3:00	Nastavnici na predmetu	V_rendgen
10/12/2025	12:00	15:00	General and Clinical Radiology	v8 R Urogenital system, Coll 2	7E-1		3:00	Nastavnici na predmetu	V_rendgen
11/12/2025	9:00	12:00	General and Clinical Radiology	v8 R Urogenital system, Coll 2	7E-2		3:00	Nastavnici na predmetu	V_rendgen
12/12/2025	9:00	12:00	General and Clinical Radiology	v8 R Urogenital system, Coll 2	7E-3		3:00	Nastavnici na predmetu	V_rendgen

### Activities - General and Clinical Radiology (4/4)

Start Dat	Start	End	Subject	Subject	Group	Note	Length	Instructor	Room
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Total: 32

78:45

**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 1.5 points). A student must attend minimal 7 programmes (24 hours).
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>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)	Continuous knowledge checking 20 - 32 points 1 <sup>st</sup> preliminary exam (10 questions) 10 points min. – 16 points max. (1 question is worth 1.6 points) 2 <sup>nd</sup> preliminary exam (10 questions) 10 points min. – 16 points max. (1 question is worth 1.6 points)  Preliminary exam in online form.
Preliminary exams (dates)	<b>1<sup>st</sup> preliminary exam 27/11/2025; 28/11/2025; 1/12/2025;</b> <b>2<sup>nd</sup> preliminary exam 10/12/2025; 11/12/2025; 12/12/2025</b>
Final exams (dates)	<b>12/12/2025; 15/1/2026; 17/2/2026</b>
Form of final exam	Oral

**LITERATURE**

Obligatory literature	KEALY J. KEVIN, HESTER MCALLISTER (2004): Diagnostic Radiology and Ultrasonography of the Dog and Cat, 4th Edition, Philadelphia THRALL D.E. (2013): Textbook of Veterinary Diagnostic Radiology. 6th ed Saunders. St. Louis, Missouri
Optional literature	

**OBJECTIVES AND LEARNING OUTCOMES**

Course objectives	In the general part of the course the student is introduced to basics of X-rays physics, X-rays and CT devices and positioning. Both plain and digital radiography procedures will be covered. Interpretation protocols, projection effects and contrast survey will be explained to the student. In the clinical part of the subject, the theoretical and practical education of radiological diagnostic of different body systems (skeletal, digestive, respiratory, cardiovascular, and urogenital) will be covered. During the practical work, student will gain experience in analyses and interpretation of radiographs, composing the findings and determine the diagnosis.
Learning outcomes	1. to understand the physics of x-ray and CT imaging, potential harmful effect of x-ray and protection 2. to perform the x-ray survey and the image processing 3. to analyse and interpret different anatomical structures and opacities with the goal of determining the diagnosis 4 to choose and apply suitable contrast survey and to compare it with plain radiographs

5. to evaluate the diagnostic possibility in different pathological conditions and to determine the possible use of radiological exam.

### 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:**

Assoc. Prof. Hrvoje Capak, PhD



**Head of Department/Clinic:**

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



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	4	6
Practicals attendance	4	6
Active participation in seminars and practicals	5	10
Continuous knowledge checking (mid-terms)	20	32
Final exam	24	40
<b>TOTAL</b>	<b>60</b>	<b>100</b>

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

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
<b>TOTAL</b>	<b>60</b>	<b>100</b>

**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
<b>TOTAL</b>	<b>60</b>	<b>100</b>