

UNIVERSITY OF ZAGREB
FACULTY OF VETERINARY MEDICINE
Heinzelova 55
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Division: Basic and Pre-clinical Sciences Division
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Email: ialic@vef.hr
Register no.: 61-05-2024/265
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190707	REPUBLIKA HRVATSKA		
Veterinarski fakultet u Zagrebu			
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Uredbeni broj	Prilozi	Vrijednost	
251-61-05-24-51	0	-	

COURSE SYLLABUS

Course name: Anatomy with Organogenesis of Domestic Animals I

Academic year 2024-25

Course leader: Assist. Prof. Ivan Alić
Deputy course leader: Full Prof. Martina Đuras

Teachers: Full Prof. Martina Đuras, Full Prof. Srebrenka Nejedli, Assist. Prof. Ivan Alić, Assist. Prof. Mirela Pavić Vulinović, teaching assistant Kim Korpes, DVM, PhD; teaching assistant Magdalena Kolenc, DVM; teaching assistant Ante Plečaš, DVM

First day of classes: 12/11/2024

Last day of classes: 22/01/2025

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Activities - Anatomy with Organogenesis of Domestic Animals I (1/4)								
Start Date	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
12/11/2024	10:00	11:30	p01 Introduction to veterinary anatomy	1E-1, 1E-2, 1E-3		1:30	Alić I.	P_kemija
12/11/2024	14:45	15:30	p02 General anatomy of the cardiovascular system	1E-1, 1E-2, 1E-3		0:45	Alić I.	P_kemija
12/11/2024	15:30	16:15	p03 General anatomy of the nervous system	1E-1, 1E-2, 1E-3		0:45	Alić I.	P_kemija
19/11/2024	11:45	13:15	p04 General anatomy of the locomotor apparatus	1E-1, 1E-2, 1E-3		1:30	Trbojević-Vukičević T.	P_kemija
20/11/2024	8:15	9:45	p05 Skeleton and joints of the thoracic limb	1E-1, 1E-2, 1E-3		1:30	Nejedli S.	P_amfiteatar
20/11/2024	15:30	17:00	v01 Planes of the animal body. Anatomical terminology.	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat
21/11/2024	15:30	17:00	v02 Scapula and humerus	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat
22/11/2024	8:15	9:45	v03 Skeleton of the forearm	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat
25/11/2024	15:30	17:00	v04 Skeleton of the manus	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat
27/11/2024	13:45	15:15	v05 Joints of the thoracic limb	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat
28/11/2024	12:30	13:15	p06 Muscles of the thoracic limb	1E-1, 1E-2, 1E-3		0:45	Nejedli S.	P_kemija
28/11/2024	15:15	16:45	v06 Muscles of the shoulder girdle	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat

Activities - Anatomy with Organogenesis of Domestic Animals I (2/4)								
Start Date	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
29/11/2024	13:00	14:30	v07 Muscles of the shoulder and scapular region	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat
02/12/2024	11:00	12:30	p07 Blood vessels, nerves and lymph nodes of the thoracic limb	1E-1, 1E-2, 1E-3		1:30	Pavić Vulinović M.	P_kemija
02/12/2024	12:45	14:15	v08 Muscles of the arm	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat
03/12/2024	12:00	13:30	v09 Muscles of the cranio-lateral forearm	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat
04/12/2024	15:30	17:00	v10 Muscles of the caudomedial forearm	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat
05/12/2024	10:00	11:30	v11 Blood vessels and lymph nodes	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat
06/12/2024	13:45	15:15	v12 Nerves of the thoracic limb	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat
09/12/2024	13:30	15:00	v13 Regions of the thoracic limb, scapular region and axilla	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat
11/12/2024	8:15	9:45	v14 Dissection of the arm	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat
12/12/2024	10:00	11:30	v15 Dissection of the forearm	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat
13/12/2024	8:15	9:45	v16 Dissection of the forepaw and joints	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat

Activities - Anatomy with Organogenesis of Domestic Animals I (3/4)								
Start Date	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
16/12/2024	8:15	9:45	v17 Skeleton of the pelvic girdle	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat
16/12/2024	11:30	13:00	p08 Skeleton and joints of the pelvic limb	1E-1, 1E-2, 1E-3		1:30	Nejedli S.	P_amfiteatar
17/12/2024	10:00	11:30	v18 Skeleton of the thigh and leg	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat
18/12/2024	8:15	9:45	v19 Joints of the pelvic limb	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat
19/12/2024	10:00	11:30	v20 Skeleton of the pes	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat
20/12/2024	10:30	11:15	p09 Muscles of the pelvic limb	1E-1, 1E-2, 1E-3		0:45	Đuras M.	P_amfiteatar
20/12/2024	11:30	13:00	p10 Blood vessels, nerves and lymph nodes of the pelvic limb	1E-1, 1E-2, 1E-3		1:30	Pavić Vulinović M.	P_amfiteatar
07/01/2025	10:15	11:45	v21 Muscles of the pelvic girdle and croup	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat
08/01/2025	8:15	9:45	v22 Muscles of the thigh	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat
09/01/2025	8:15	9:45	v23 Muscles of the craniolateral leg	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat
10/01/2025	15:30	17:00	v24 Muscles of the caudal leg	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat
13/01/2025	10:30	12:00	v25 Blood vessels and lymph nodes	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat
14/01/2025	8:15	9:45	v26 Nerves of the pelvic limb	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat

Activities - Anatomy with Organogenesis of Domestic Animals I (4/4)								
Start Date	Start T	End T	Subject	Group	Note	Length	Instructor	Room
15/01/2025	8:15	9:45	v27 Regions of the pelvic limb, pelvic girdle and croup	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat
16/01/2025	11:45	13:15	v28 Dissection of the thigh	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat
17/01/2025	10:00	11:30	v29 Dissection of the leg	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat
20/01/2025	13:45	15:15	v30 Dissection of the hindpaw and joints	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat
21/01/2025	10:30	12:00	p11 Digital organ	1E-1, 1E-2, 1E-3		1:30	Đuras M.	P_amfiteatar
21/01/2025	12:30	14:00	v31 Hoof	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat
22/01/2025	11:45	13:15	v32 Dissection of the hoof	1E-1, 1E-2, 1E-3		1:30	Nastavnici na predmetu	S_anatomija I kat
			Anatomy with Organogenesis of Domestic Animals I	Anatomy I. - lecture		1:30	Alić I.	P_kemija
Total: 44						63:00		

STUDENT OBLIGATIONS

Lectures attendance	The course has 18 hours of lectures. Lecture attendance is graded with 6 points in total. The student has to attend at least 9 hours of lectures and achieve at least 3 points.
Practicals attendance	The course has 64 hours of practicals. Practicals attendance is graded with 12 points in total. The student has to attend at least 51 hours of practicals and achieve at least 8 points.
Active participation in practicals	Active participation in the practicals is evaluated through short oral testing during practicals and is graded with 10 points in total. The student has to achieve at least 5 points.
Final exam	Oral exam is graded with 40 points in total. The student has to achieve at least 24 points at the oral exam.
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 41: a student can justifiably be absent from up to 50 % of the lectures and 30 % of the practicals.

GRADING AND EVALUATING STUDENT WORK

Continuous knowledge-checking (mid-terms)	There are two written tests. A maximum of 16 points per test can be achieved. The student has to achieve at least 10 points per test in order to pass. The points of both passed tests are summarized. Both tests are graded together with a maximum of 32 points. Passing these two tests is a pre-condition for taking the oral exam. The written tests will be held in the Computer Halls of the Department for Animal Breeding and Livestock Production. Written test I will be held on 18/12/2024, 5:15-6:15pm, in the Large Computer Hall (1 st repetition: 27/01/2025, 8:00-9:00am, Large Computer Hall; 2 nd repetition: 03/02/2025, 8:00-9:00am, Large Computer Hall). Written test II will be held on 22/01/2025, 4:00-5:00pm, in the Large Computer Hall (1 st repetition: 27/01/2025, 8:00-9:00am, Large Computer Hall; 2 nd repetition: 03/02/2025, 8:00-9:00am, Large Computer Hall).
Final exams (dates)	05/02/2025 and 17/02/2025. Additional examination terms that will be published in February 2025 for the summer semester
Form of final exam	The oral exam is graded with 40 points in total. The student has to achieve at least 24 points at the oral exam.

LITERATURE

Obligatory literature	KÖNIG, H. E., H. G. LIEBICH (2007): Veterinary anatomy of domestic mammals, Textbook and color atlas. 3rd Ed. Schattauer, Stuttgart, New York DYCE, K. M., W. O. SACK, C. J. G. WENSING (2010): Textbook of veterinary anatomy. 4th Ed. Saunders Elsevier, Philadelphia. DONE, S. H., P. C. GOODY, S. A. EVANS, N. C. STICKLAND (2009): Color atlas of veterinary anatomy. Volume 3. The dog and cat. 2nd Ed. Mosby Elsevier, Edinburgh, London, New York. EVANS, H. E., A. de LAHUNTA (2010): Guide to the dissection of the dog. 7th Ed. Saunders Elsevier, Philadelphia. McGEADY, T. A., P. J. QUINN, E. S. FITZPATRICK, M. T. RYAN (2006): Veterinary embryology. Blackwell Publishing, Dublin.
Optional literature	NICKEL, R., A. SCHUMMER, E. SEIFERLE (1986): The locomotor system of the domestic mammals. Volume I. Verlag Paul Parey, Berlin, Hamburg. NICKEL, R., A. SCHUMMER, E. SEIFERLE (1981): The circulatory system, the skin, and the cutaneous organs of the domestic mammals. Volume III. Verlag Paul Parey, Berlin, Hamburg. EVANS H. E., A. De LAHUNTA (2012): Miller's anatomy of the dog. 4th Ed. WB Saunders Company, Philadelphia, London. SCHALLER, O. (2007): Illustrated veterinary anatomical nomenclature. 2nd Ed. Ferdinand Enke Verlag, Stuttgart. HYTTEL, P., F. SINOWATZ, M. VEJLSTED (2010): Essentials of domestic animal embryology. Saunders Elsevier, Philadelphia. SADLER, T. W. (2006): Langman's medical embryology, Lippincott Williams & Wilkins a Wolters Kluwer business. 10th Ed. Philadelphia, Baltimore, New York.

OBJECTIVES AND LEARNING OUTCOMES

Course objectives	Following successful completion of the course, students will be able to apply acquired knowledge on gross anatomy and development of the thoracic and pelvic limbs of domestic mammals during preclinical and clinical courses.
Learning outcomes	After completing the course and passing the final exam, the student will be able to: 1. describe and interpret the organization of the anatomical structures of the thoracic and pelvic limb as a basis for clinical and public health assessment 2. recognize the differences in the anatomical structures of the thoracic and pelvic limb in various domestic mammal species as a basis for clinical and public health assessment 3. distinguish the normal anatomical structure of the thoracic and pelvic limb in order to recognize pathological changes 4. explain the principles of embryonic development of the anatomical structures of the thoracic and pelvic limb in order to understand and assess congenital malformations 5. explain the mutual topographical and functional relationships of the anatomical structures of the thoracic and pelvic limb as a basis for application in clinical work

GRADING SCHEME

Points	Grade
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:


 Assist. Prof. Ivan Alić


 Assist. Prof. Mirela Pavić Vulinović

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
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