

UNIVERSITY OF ZAGREB  
FACULTY OF VETERINARY MEDICINE  
Heinzelova 55  
Tel. 01/ 2390243  
Division: Basic and Pre-clinical Sciences Division  
Department / Clinic: Department of Anatomy, Histology and Embryology  
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Register no.:  
File no.:  
Zagreb, 20/8/2018

### COURSE SYLLABUS

Course name: Anatomy with Organogenesis of Domestic Animals I

Academic year 2018-19

Course leader: Assoc. Prof. Martina Đuras

Teachers: Prof. Tajana Trbojević Vukičević

Associate teachers: Mirela Pavić, PhD, DVM, Lucija Bastiančić, DVM, Denis Leiner, DVM

First day of classes: 22/10/2018

Last day of classes: 18/1/2019

Timetable for LECTURES academic year 2018-2019

LECTURES				
Date	Methodological unit	Teacher	Location / time	Literature
22/10/2018	Introduction and anatomical nomenclature	Assoc. Prof. Martina Đuras	Lecture Room Department of Veterinary Pathology / 14-15	<p>KÖNIG, H. E., H.-G. LIEBICH (2007): Veterinary anatomy of domestic mammals, Textbook and color atlas. 3<sup>rd</sup> Ed. Schattauer, Stuttgart, New York</p> <p>DYCE, K. M., W. O. SACK, C. J. G. WENSING (2010): Textbook of veterinary anatomy. 4<sup>th</sup> Ed. Saunders Elsevier, Philadelphia.</p> <p>McGEADY, T. A., P. J. QUINN, E. S. FITZPATRICK, M. T. RYAN (2006): Veterinary embryology. Blackwell Publishing, Dublin.</p>
22/10/2018	Regions of the thoracic and pelvic limb	Prof. Tajana Trbojević Vukičević	Lecture Room Department of Veterinary Pathology/ 15-16	
25/10/2018	General anatomy of the cardiovascular system General anatomy of the nervous system	Prof. Tajana Trbojević Vukičević	Amphitheatre / 8-10	
26/10/2018	General anatomy of the locomotor apparatus Basic arthrology	Assoc. Prof. Martina Đuras	Department of Forensic & Judicial Veterinary Medicine/ 10-12	
29/10/2018	Skeleton and joints of the thoracic limb	Prof. Tajana Trbojević Vukičević	Amphitheatre/ 12-14	
13/11/2018	Development of the muscular tissue Extrinsic and intrinsic musculature of the thoracic limb	Assoc. Prof. Martina Đuras	Lecture Room Department of Physics and Biophysics / 14-16	
21/11/2018	Blood vessels, nerves and lymph nodes of the thoracic limb	Assoc. Prof. Martina Đuras	Department of Forensic & Judicial Veterinary Medicine/ 12-13	
30/11/2018	Skeleton and joints of the pelvic limb	Prof. Tajana Trbojević Vukičević	Department of Forensic & Judicial Veterinary Medicine/ 8-10	
5/12/2018	Extrinsic and intrinsic musculature of the pelvic limb	Prof. Tajana Trbojević Vukičević	Department of Forensic & Judicial Veterinary Medicine/ 8-10	
10/12/2018	Blood vessels, nerves and lymph nodes of the pelvic limb	Assoc. Prof. Martina Đuras	Amphitheatre / 12-13	
10/1/2019	Organum digitale	Assoc. Prof. Martina Đuras	Amphitheatre/10-12	

## Timetable for PRACTICALS academic year 2018-2019

Department of Anatomy, Histology and Embryology=DAHE

PRACTICALS						
Date	Methodological unit	Teacher	Type of practicals	Group	Location / time	Literature
30/10/2018	Directional terms and planes of the animal body Skeleton of the thoracic limb I	Assoc. Prof. Martina Đuras Lucija Bastiančić, DVM	Dissection	1,2	Dissection Hall, DAHE/ 8-10	KÖNIG, H. E., H.-G. LIEBICH (2007): Veterinary anatomy of domestic mammals, Textbook and color atlas. 3 <sup>rd</sup> Ed. Schattauer, Stuttgart, New York  DYCE, K. M., W. O. SACK, C. J. G. WENSING (2010): Textbook of veterinary anatomy. 4 <sup>th</sup> 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
9/11/2018	Skeleton of the thoracic limb II	Prof. Tajana Trbojević Vukičević Lucija Bastiančić, DVM	Dissection	1,2	Dissection Hall, DAHE/ 8-11	
12/11/2018	Skeleton of the thoracic limb III	Prof. Tajana Trbojević Vukičević Lucija Bastiančić, DVM	Dissection	1,2	Dissection Hall, DAHE/ 8-10	
16/11/2018	Skeleton of the thoracic limb IV	Prof. Tajana Trbojević Vukičević Lucija Bastiančić, DVM	Dissection	1,2	Dissection Hall, DAHE/ 11-14	
20/11/2018	Regions and fasciae of the thoracic limb Girdle muscles of the thoracic limb I	Prof. Tajana Trbojević Vukičević Denis Leiner, DVM	Dissection	1,2	Dissection Hall, DAHE/ 16-19	
21/11/2018	Girdle muscles of the thoracic limb II	Prof. Tajana Trbojević Vukičević Denis Leiner, DVM	Dissection	1,2	Dissection Hall, DAHE/ 10-12	
22/11/2018	Muscles of the shoulder and scapular region I	Assoc. Prof. Martina Đuras Denis Leiner, DVM	Dissection	1,2	Dissection Hall, DAHE/ 14-16	
26/11/2018	Muscles of the arm	Assoc. Prof. Martina Đuras Denis Leiner, DVM	Dissection	1,2	Dissection Hall, DAHE/ 12-14	
27/11/2018	Muscles of the forearm I	Assoc. Prof. Martina Đuras Denis Leiner, DVM	Dissection	1,2	Dissection Hall, DAHE/ 10-12	
28/11/2018	Muscles of the forearm II	Assoc. Prof. Martina Đuras Denis Leiner, DVM	Dissection	1,2	Dissection Hall, DAHE/ 16-18	
29/11/2018	Blood vessels, nerves and lymph nodes of the thoracic limb I	Assoc. Prof. Martina Đuras Lucija Bastiančić, DVM	Dissection	1,2	Dissection Hall, DAHE/ 14-17	
3/12/2018	Blood vessels, nerves and lymph nodes of the thoracic limb II	Assoc. Prof. Martina Đuras Lucija Bastiančić, DVM	Dissection	1,2	Dissection Hall, DAHE/ 10-12	
4/12/2018	Joints of the thoracic limb	Assoc. Prof. Martina Đuras Lucija Bastiančić, DVM	Dissection	1,2	Dissection Hall, DAHE/ 16-18	

6/12/2018	Skeleton of the pelvic limb I	Prof. Tajana Trbojević Vukičević Denis Leiner, DVM	Dissection	1,2	Dissection Hall, DAHE/ 14-16	dissection of the dog. 7 <sup>th</sup> Ed. Saunders Elsevier. Philadelphia.
11/12/2018	Skeleton of the pelvic limb II	Prof. Tajana Trbojević Vukičević Denis Leiner, DVM	Dissection	1,2	Dissection Hall, DAHE/ 14-17	
12/12/2018	Regions and fasciae of the pelvic limb.	Prof. Tajana Trbojević Vukičević Denis Leiner, DVM	Dissection	1,2	Dissection Hall, DAHE/ 14-17	
13/12/2018	Girdle muscles of the pelvic limb	Prof. Tajana Trbojević Vukičević Mirela Pavić, PhD, DVM	Dissection	1,2	Dissection Hall, DAHE/ 14-17	
14/12/2018	Muscles of croup	Mirela Pavić, PhD, DVM Assoc. Prof. Martina Đuras	Dissection	1,2	Dissection Hall, DAHE/ 8-10	
7/1/2019	Muscles of the thigh I	Mirela Pavić, PhD, DVM Lucija Bastiančić, DVM	Dissection	1,2	Dissection Hall, DAHE/ 8-10	
8/1/2019	Muscles of the thigh II	Mirela Pavić, PhD, DVM Lucija Bastiančić, DVM	Dissection	1,2	Dissection Hall, DAHE/ 14-17	
9/1/2019	Muscles of the leg I	Mirela Pavić, PhD, DVM Lucija Bastiančić, DVM	Dissection	1,2	Dissection Hall, DAHE/ 14-17	
11/1/2019	Muscles of the leg II	Mirela Pavić, PhD, DVM Lucija Bastiančić, DVM	Dissection	1,2	Dissection Hall, DAHE/ 14-17	
14/1/2019	Blood vessels, nerves and lymph nodes of the pelvic limb I	Mirela Pavić, PhD, DVM Assoc. Prof. Martina Đuras	Dissection	1,2	Dissection Hall, DAHE/ 14-16	
15/1/2019	Blood vessels, nerves and lymph nodes of the pelvic limb II	Mirela Pavić, PhD, DVM Denis Leiner, DVM	Dissection	1,2	Dissection Hall, DAHE/ 14-17	
17/1/2019	Joints of the pelvic limb	Mirela Pavić, PhD, DVM Denis Leiner, DVM	Dissection	1,2	Dissection Hall, DAHE/ 14-17	
18/1/2019	Organum digitale	Mirela Pavić, PhD, DVM Assoc. Prof. Martina Đuras	Dissection	1,2	Dissection Hall, DAHE/14-17	

**STUDENT OBLIGATIONS**

Lecture attendance	The course has 18 hours of lectures. One hour of lecture (45 minutes) is equal to 0.33 points. 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. One hour of practicals (45 minutes) is equal to 0.19 points. Practical attendance is graded with 12 points in total. The student has to attend at least 42 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. <b>Article 45:</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)	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.
Final exams (dates)	14/11/2018, 5/12/2018, 10/1/2019, 1/2/2019, 15/2/2015
Form of final exam	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	<p>KÖNIG, H. E., H.-G. LIEBICH (2007): Veterinary anatomy of domestic mammals, Textbook and color atlas. 3<sup>rd</sup> Ed. Schattauer, Stuttgart, New York</p> <p>DYCE, K. M., W. O. SACK, C. J. G. WENSING (2010): Textbook of veterinary anatomy. 4<sup>th</sup> Ed. Saunders Elsevier, Philadelphia.</p> <p>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.</p> <p>EVANS, H. E., A. de LAHUNTA (2010): Guide to the dissection of the dog. 7<sup>th</sup> Ed. Saunders Elsevier. Philadelphia.</p> <p>McGEADY, T. A., P. J. QUINN, E. S. FITZPATRICK, M. T. RYAN (2006): Veterinary embryology. Blackwell Publishing, Dublin.</p>
Optional literature	<p>NICKEL, R., A. SCHUMMER, E. SEIFERLE (1986): The locomotor system of the domestic mammals. Volume I. Verlag Paul Parey, Berlin, Hamburg.</p> <p>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.</p> <p>EVANS H. E., A. De LAHUNTA (2012): Miller's anatomy of the dog. 4<sup>th</sup> Ed. WB Saunders Company, Philadelphia, London.</p> <p>SCHALLER, O. (2007): Illustrated veterinary anatomical nomenclature. 2nd Ed. Ferdinand Enke Verlag, Stuttgart.</p> <p>HYTTEL, P., F. SINOWATZ, M. VEJLSTED (2010): Essentials of domestic animal embryology. Saunders Elsevier, Philadelphia.</p> <p>SADLER, T. W. (2006): Langman's medical embryology, Lippincott Williams &amp; Wilkins a Wolters Kluwer business. 10<sup>th</sup> Ed. Philadelphia, Baltimore, New York.</p>

**OBJECTIVES AND LEARNING OUTCOMES**

Course objectives	The course presents the gross anatomy of domestic animals with embryonic development of organs and organic systems to veterinary medicine students in order to ensure basic knowledge for other disciplines such as physiology, pathology and clinical courses.
Learning outcomes	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.

**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:

Head of Department/Clinic:

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Assoc. Prof. Martina Đuras\_\_\_\_\_  
Assoc. Prof. Martina Đuras

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**

<b>Type of activity</b>	<b>Minimum number of points</b>	<b>Maximum number of points</b>
Lectures attendance	<b>3</b>	<b>6</b>
Seminar attendance	<b>4</b>	<b>6</b>
Practicals attendance	<b>4</b>	<b>6</b>
Active participation in seminars and practicals	<b>5</b>	<b>10</b>
Continuous knowledge checking (mid-terms)	<b>20</b>	<b>32</b>
Final exam	<b>24</b>	<b>40</b>
<b>TOTAL</b>	<b>60</b>	<b>100</b>

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

<b>Type of activity</b>	<b>Minimum number of points</b>	<b>Maximum number of points</b>
Lecture attendance	<b>3</b>	<b>6</b>
Practicals attendance	<b>8</b>	<b>12</b>
Active participation in practicals	<b>5</b>	<b>10</b>
Continuous knowledge checking (mid-terms)	<b>20</b>	<b>32</b>
Final exam	<b>24</b>	<b>40</b>
<b>TOTAL</b>	<b>60</b>	<b>100</b>

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

<b>Type of activity</b>	<b>Minimum number of points</b>	<b>Maximum number of points</b>
Seminar / practicals attendance	<b>11</b>	<b>18</b>
Active participation in seminars and practicals	<b>5</b>	<b>10</b>
Continuous knowledge checking (mid-terms)	<b>20</b>	<b>32</b>
Final exam	<b>24</b>	<b>40</b>
<b>TOTAL</b>	<b>60</b>	<b>100</b>