

**MINISTRY OF SCIENCE AND EDUCATION OF THE REPUBLIC OF
AZERBAIJAN**

KHAZAR UNIVERSITY

**HASVET SCHOOL OF VETERINARY MEDICINE
DEPARTMENT OF VETERINARY MEDICINE**

**ANIMAL ANATOMY – 2
SYLLABUS**

Academic year and semester:

Autumn semester of the 2026/27 academic year

Instructor: Afag Nurullayeva

Approved

Head of Department:

S.J. Mammadova, PhD in Biology

Identification	Subject	VET 260/ Animal Anatomy-2 (6 ECTS)
	Department	Veterinary Medicine
	Program (Undergraduate, Graduate)	Undergraduate
	Term	Autumn semester of 2026–2027
	Instructor	Afag Nurullayeva
	Email:	afag.nurullayeva@khazar.org
	Classroom/hours	Baku, Nizami district, 72 J. Nakhchivanski Street; consultation at times agreed upon with students
Prerequisites	Animal Anatomy-1 (VET 144)	
Language	English	
Compulsory/Elective	Compulsory	
Textbooks and course materials	Core textbooks (entry numbers are used as references in the schedule below) 1. Ramazanov A.M. Anatomy of Domestic Animals [Ev heyvanlarının anatomiyası]. Ganja, 2010, 518 p. (in Azerbaijani). 2. Bahadır A., Yıldız H. Veteriner Anatomi: Hareket Sistemi ve İç Organlar [Veterinary Anatomy: Locomotor System and Internal Organs], 2012 (in Turkish). 3. Budras K.-D., Wünsche A. Veteriner Anatomi Atlası: Sığır [Atlas of Veterinary Anatomy: Cattle], 2009 (in Turkish). 4. König H.E., Liebich H.-G. (Eds.). Veterinary Anatomy of Domestic Animals: Textbook and Colour Atlas, 7th ed. Stuttgart: Thieme, 2020. 5. Hazıroğlu R.M. Temel Veteriner Anatomi [Basic Veterinary Anatomy]. Anadolu University, 2011 (in Turkish). 6. Shubina T.P., Choporova N.V. Anatomicheskie osobennosti stroeniya vnutrennikh organov domashnikh zhivotnykh [Anatomical Features of the Structure of the Internal Organs of Domestic Animals]. Persianovsky, 2021, 104 p. (in Russian). 7. Khrustaleva I.V. Anatomiya domashnikh zhivotnykh [Anatomy of Domestic Animals], 1998, 704 p. (in Russian). 8. Klimov A.F., Akaevskiy A.I. Anatomiya domashnikh zhivotnykh [Anatomy of Domestic Animals], 2003, 1040 p. (in Russian). 9. Gimmelreikh G.A., Abelyants G.S., Osinskiy G.A., Rudik S.K., Levchuk V.S. Anatomiya domashnikh zhivotnykh: Praktikum po preparirovaniyu [Anatomy of Domestic Animals: Practical Manual on Dissection], 1980, 155 p. (in Russian). 10. Singh B. (Ed.). Dyce, Sack, and Wensing's Textbook of Veterinary Anatomy, 5th ed. Elsevier.	

	Supplementary literature: 11. Stevens C.E., Hume I.D. Contributions of microbes in vertebrate gastrointestinal tract to production and conservation of nutrients. <i>Physiological Reviews</i>, 1998, 78(2), 393–427. https://doi.org/10.1152/physrev.1998.78.2.393 12. Svihus B. Function of the digestive system. <i>Journal of Applied Poultry Research</i>, 2014, 23(2), 306–314. https://doi.org/10.3382/japr.2014-00937 Online resources: https://libguides.berry.edu/ans/study https://acikders.ankara.edu.tr/course/view.php?id=373 https://anatomylearner.com/ https://www.ivalalearn.com/ https://biosphera3d.com/product/3d-bovine-anatomy-software/ Video materials: https://www.youtube.com/watch?v=6OoFyLHqjLM https://www.youtube.com/watch?v=XkODTPx84XQ https://www.youtube.com/watch?v=6oSScHaoyks https://www.youtube.com/watch?v=iPBmW7nB0Qg
Course description	The course “Animal Anatomy-2” builds on Animal Anatomy-1 and studies the normal form, structure, size and topography of the organs that make up the animal body. The course combines several branches of anatomy, including dermatology (structure and function of the skin), splanchnology (the system of internal organs), angiology (structure of the blood and lymphatic vessels) and neurology (the nervous system), and covers the anatomical features of domestic poultry. Key topics include the digestive, respiratory, urinary, reproductive, cardiovascular and nervous systems, the sense organs, the integumentary system and the endocrine glands. Species differences among domestic mammals and birds are studied comparatively. Lectures and seminars are complemented by practical sessions in which students dissect and prepare organs and anatomical specimens. Anatomical knowledge is presented as the morphological basis for physiology, clinical examination, diagnostics and surgery in veterinary medicine.
Course objectives	Animal anatomy is one of the disciplines that form the fundamental basis of veterinary medicine. The aim of this course is, at an introductory level, to acquaint students with the animal organism and to develop their knowledge of the form and

	structure of the body. The course also aims to identify students' academic potential, motivate them towards science and help them to realize that potential; to convey the importance of biological research for the current and future development of science; and to encourage participation in the course in an atmosphere of mutual respect and understanding.		
Learning Outcomes	Describe the general principles of anatomy and the organization of the animal body, including organs, tissues and body cavities Use Latin anatomical terminology correctly in oral and written form Describe the anatomical structure and topography of the digestive, respiratory, urinary and reproductive organs of domestic animals Describe the structure of the heart, the blood vessels and the lymphatic system Describe the structure of the central and peripheral nervous system, the sense organs, the integument and the endocrine glands Compare species-specific anatomical features of domestic mammals and birds Identify organs and anatomical structures on specimens, models and illustrations Perform dissection and preparation of organs safely and responsibly, following established procedures Relate anatomical structures to their function and to clinical and diagnostic practice in veterinary medicine Communicate clearly using appropriate academic and professional terminology Demonstrate independent learning using textbooks and reliable online resources		
Teaching methods	Lecture		x
	Seminar		x
	Group discussion		x
	Practical session (dissection)		x
Evaluation Criteria	Methods	Date/deadlines	Percentage (%)
	Midterm Exam	TBA	30
	Assignments and quizzes (Quiz 1, 2, 3)	Weeks 5, 10 and 14	15
	Participation (Activity)	Throughout the semester	10
	Attendance	Throughout the semester	5
	Final Exam	TBA	40
	Total		100
Class Policy	Course organization: General information about the course is communicated to students during lectures. New topics are explained using visual aids (PowerPoint presentations and video files). Students' mastery is assessed (Quiz) before the midterm and final examinations. During seminar sessions, students' mastery of the previous topic is assessed in every class by oral and written questioning, and an overall grade is calculated at the end of the semester (Participation). Attendance: Attendance at all classes is mandatory. Students must notify the faculty dean's office of any absences and their reasons (illness, family circumstances, etc.). Students who miss more than 25% of classes are not admitted to the examination. Tardiness: A student who arrives more than 10 minutes late is marked absent. Nevertheless, the student is allowed to attend the class. Quizzes: A student who misses a quiz for a reason communicated in advance to the instructor and the dean's office may take the quiz the following week.		

Examinations: All matters concerning a student's attendance at, or absence from, an examination are resolved by the faculty administration. Absence from an examination is possible only with the permission of the dean's office. Evasion of examinations on account of public activities is not permitted. Examinations must be cumulative. The topics of the midterm and final examinations are given to students before the examination. Most of the questions on the final examination are based on the material covered after the midterm examination. Course completion: A student who earns 60% or more of the total points is considered to have completed the course. Otherwise, the student must retake the course. Violations of examination rules: In cases of violation of examination rules (attempts to cheat, cheating, disrupting the conduct of the examination and other unlawful actions), the student's examination paper is annulled. Classroom conduct: Students must do everything possible to maintain an appropriate academic environment during class. Unauthorized talking, unnecessary movements and other unethical behavior are strictly prohibited. Students are expected to participate actively in class, ask questions when necessary and take part in discussions. Disrupting the learning process and ethical norms, unauthorized discussions among students and the use of mobile phones during class are prohibited.			
Tentative Schedule			
Week	Date/Day (tentative)	Topics	Textbook/Assignments
1	26.09.2026	Anatomy of the digestive system I. General characteristics of the system. Oral cavity and its organs. Foregut division. Regional division of the abdominal cavity. Simple (single-chambered) stomach.	1 (pp. 261–314); 5 (pp. 54–60).
2	03.10.2026	Anatomy of the digestive system II. Multichambered stomach. Midgut division. Rectum. Liver, spleen, pancreas. Practical session: Dissection of the organs of the gastrointestinal tract; complex anatomical dissection of the epigastric region and the intestinal organs.	1 (pp. 314–325); 5 (pp. 60–69); 9 (pp. 65–69)
3	10.10.2026	Respiratory system. Nasal cavity. Thoracic cavity. Practical session: Dissection of the respiratory organs.	1 (pp. 380–427); 5 (pp. 70–82); 9 (pp. 69–70)
4	17.10.2026	Cardiovascular system. Structure of the heart. Blood vessels. Lymphatic system. Practical session: Dissection of the heart: preparation of an anatomical specimen showing the topography of the heart; opening of the heart chambers and of the great vessels adjacent to the heart.	5 (pp. 100–113); 7 (pp. 529–603); 9 (pp. 73–80).
5	24.10.2026	Urinary system. General characteristics of the system. Kidneys. Ureters. Urinary bladder. Quiz 1 Practical session: Dissection of the kidney.	1 (pp. 428–447); 5 (pp. 84–86); 9 (p. 70)
6	31.10.2026	Reproductive system I. Anatomical structure of the male reproductive organs.	1 (pp. 448–489); 5 (pp. 87–90).
7	07.11.2026	Reproductive system II. Anatomical structure of the female reproductive organs. Practical session: Dissection of the reproductive organs of male and female animals.	1 (pp. 489–512); 5 (pp. 91–95); 9 (pp. 70–73)
		Midterm exam	
8	14.11.2026	Central nervous system.	1 (pp. 23–90); 5 (pp. 114–120); 9 (pp. 80–82)

		Practical session: Preparation of brain and spinal cord specimens.	
9	21.11.2026	Peripheral nervous system. Practical session: Preparation of anatomical specimens of the vessels and nerves of the thoracic cavity.	1 (pp. 90–134); 5 (pp. 121–126); 9 (pp. 108–112)
10	28.11.2026	Sense organs I. Visual analyzer. Eyeball. Accessory organs of the eye. Quiz 2	1 (pp. 156–181); 5 (pp. 135–138).
11	05.12.2026	Sense organs II. Organ of hearing and balance. External ear. Middle ear. Inner ear. Olfactory organ. Practical session: Preparation of anatomical specimens of the organs of hearing.	1 (pp. 181–199); 5 (pp. 133–134); 9 (pp. 130–132)
12	12.12.2026	Integumentary system. Integument of domestic animals. Hair. Hoof. Claw. Horn. Skin glands.	1 (pp. 200–217, 225–237); 5 (pp. 143–146); 1 (pp. 238–252); 5 (p. 148).
13	19.12.2026	Endocrine glands. Endocrine glands of endodermal origin. Endocrine glands of ectodermal origin.	1 (pp. 3–22); 6 (pp. 10–13, 50–51); 9 (p. 132)
14	26.12.2026	Internal organ systems of birds. Quiz 3	5 (pp. 160–174); 7 (pp. 646–674)
		Final exam	