



SZKOŁA GŁÓWNA
GOSPODARSTWA
WIEJSKIEGO

Radiographic anatomy of dog and cat

Educational subject description sheet

Basic information

Field of study Veterinary Medicine	Didactic cycle 2024/25
Speciality -	Subject code WETFVMS_D.540K.633d37e77b7ad.24
Organizational unit Faculty of Veterinary Medicine	Lecture languages english
Study level long-cycle	Mandatory Elective subjects
Study form full-time studies	Block Major subjects
Education profile General academic	Disciplines Veterinary medicine
Coordinator	Małgorzata Domino
Teacher	Małgorzata Domino
Period Semester 7	Examination Pass with grade
	Activities and hours Lecture: 15
	Number of ECTS points 1

Goals

Code	Goal
C1	The course aims to familiarize students with the principles and radiological nomenclature of small animal radiology with particular consideration of normal variation within dogs and cats. The course aims to prepare students for the proper use of radiological nomenclature and the proper recognition of normal anatomical structures on radiological images.

Entry requirements

Passing the courses: Animal anatomy, Comparative anatomy, Topographic anatomy, and Animal physiology

Subject's learning outcomes

Code	Outcomes in terms of	Effects	Examination methods
Knowledge - Student knows and understands:			
W1	the nomenclature of anatomical structures, organs, and their descriptive parts in the radiological image.	A.W1, A.W2, A.W20, A.W3, B.W4	Written credit
W2	the terms determining body axes, directions, and position of anatomical structures, organs, and their descriptive parts on the radiological image.	A.W1, A.W2, A.W20, A.W3, B.W4	Written credit
W3	the basic radiological views and their application in clinical practice.	A.W1, A.W2, A.W3, B.W4	Written credit
W4	the species-specific, morphotypes, and racial differences of anatomical structures, organs, and their descriptive parts in the radiological image.	A.W1, A.W2, A.W3	Written credit
Skills - Student can:			
U1	arrange the radiological image for image evaluation.	A.U14, B.U7	Written credit
U2	recognize the anatomical structures, organs, and their descriptive parts visible in the radiological image.	A.U14, B.U7	Written credit
U3	name the anatomical structures, organs, and their descriptive parts visible in the radiological image.	A.U14, B.U7	Written credit
Social competences - Student is ready to:			
K1	use morphological knowledge in the process of animal health assessment.	KS.4, KS.5, KS.9	Written credit
K2	application of morphological knowledge in professional life.	KS.4, KS.5, KS.9	Written credit
K3	application of morphological knowledge in the critical analysis of radiological images.	KS.4, KS.5, KS.9	Written credit
K4	need for continuing education and is ready to deepen his/her knowledge using scientific sources.	KS.4, KS.5, KS.8, KS.9	Written credit

Study content

No.	Course content	Subject's learning outcomes	Activities
1.	Basics of X-ray image formation and orientation to prepare the proper image description.	W2, W3, U1	Lecture
2.	Basics of X-ray views - the effect of small animal age, breed, and morphological type on the position and conformation of descriptive structures.	W2, W3, U1	Lecture
3.	Radiographic anatomy of head - skull, oral cavity, teeth.	W1, W4, U2, U3, K1, K2, K3, K4	Lecture
4.	Radiographic anatomy of head and neck - nasal cavities, sinuses, larynx, trachea.	W1, W4, U2, U3, K1, K2, K3, K4	Lecture

5.	Radiographic anatomy of spine.	W1, W4, U2, U3, K1, K2, K3, K4	Lecture
6.	Radiographic anatomy of thorax - bronchi and lung.	W1, W4, U2, U3, K1, K2, K3, K4	Lecture
7.	Radiographic anatomy of thorax - diaphragm, mediastinum, and pleural cavity.	W1, W4, U2, U3, K1, K2, K3, K4	Lecture
8.	Radiographic anatomy of thorax - heart and blood vessels.	W1, W4, U2, U3, K1, K2, K3, K4	Lecture
9.	Radiographic anatomy of abdomen - gastrointestinal tract.	W1, W4, U2, U3, K1, K2, K3, K4	Lecture
10.	Radiographic anatomy of abdomen - Glands.	W1, W4, U2, U3, K1, K2, K3, K4	Lecture
11.	Radiographic anatomy of abdomen - Urinary tract.	W1, W4, U2, U3, K1, K2, K3, K4	Lecture
12.	Radiographic anatomy of abdomen - Reproductive tract.	W1, W4, U2, U3, K1, K2, K3, K4	Lecture
13.	Radiographic anatomy of limbs - limbs of growing dogs and cats.	W1, W4, U2, U3, K1, K2, K3, K4	Lecture
14.	Radiographic anatomy of limbs - thoracic limbs of adult dogs and cats.	W1, W4, U2, U3, K1, K2, K3, K4	Lecture
15.	Radiographic anatomy of limbs - pelvic limbs of adult dogs and cats.	W1, W4, U2, U3, K1, K2, K3, K4	Lecture

Course advanced

Activities	Methods of conducting classes
Lecture	Lecture

Activities	Examination method	Percentage
Lecture	Written credit	100%

Activities	Credit conditions
Lecture	The maximum number of points to be obtained is 100 points. A grade is given according to the criteria: <51 - 2; 52-60 - 3, 61-70 - 3+, 71-80 - 4; 81-90 - 4+; > 91 - 5. A student who has not obtained the specified minimum acceptable number of points from the evaluation of colloquia does not obtain credit for the course.

Literature

Obligatory

1. Coulson A., Lewis N. (2008) An Atlas of Interpretative Radiographic Anatomy of the Dog and Cat, Wiley-Blackwell
2. Thrall D., Robertson I. (2023) Atlas of Normal Radiographic Anatomy and Anatomic Variants in the Dog and Cat, Elsevier
3. Muhlbauer M.C., Kneller S. K. (2013) Radiography of the Dog and Cat: Guide to Making and Interpreting Radiographs, Wiley-Blackwell

Optional

1. Kealy K.J. et al (2010) Diagnostic Radiology and Ultrasonography of the Dog and Cat, Saunders
2. Wolvekamp P. (2005) Atlas of Radiology of the Traumatized Dog and Cat, Schlütersche
3. Thrall E. (2020) Textbook of Veterinary Diagnostic Radiology, Saunders
4. Waibl H. (2004) Atlas of Radiographic Anatomy of the Cat/Anatomie der Katze (Atlas of Radiographic Anatomy of the Dog and Cat), Perey
5. DuPont G.A., DeBowes L.J. (2008) Atlas of Dental Radiography in Dogs and Cats, Saunders

Calculation of ECTS points

Activity form	Activity hours*
Lecture	15
Preparation for the test	10
Self-study on the content covered in class	5
Student workload	Hours 30
Number of ECTS points	ECTS 1

* hour means 45 minutes

Effects

Code	Content
KS.4	Absolwent jest gotów do korzystania z obiektywnych źródeł informacji
KS.5	Absolwent jest gotów do formułowania wniosków z własnych pomiarów lub obserwacji
KS.8	Absolwent jest gotów do pogłębiania wiedzy i doskonalenia umiejętności
KS.9	Absolwent jest gotów do komunikowania się ze współpracownikami i dzielenia się wiedzą
A.U14	Absolwent potrafi sporządzać przejrzyste opisy przypadków oraz prowadzić dokumentację, zgodnie z obowiązującymi w tym zakresie przepisami, w formie zrozumiałej dla właściciela zwierzęcia i czytelnej dla innych lekarzy weterynarii
A.W1	Absolwent zna i rozumie strukturę organizmu zwierzęcego: komórek, tkanek, narządów i układów
A.W2	Absolwent zna i rozumie budowę, czynność i mechanizmy regulacji narządów i układów organizmu zwierzęcego (oddechowego, pokarmowego, krążenia, wydalniczego, nerwowego, rozrodczego, hormonalnego, immunologicznego i powłok skórnych oraz ich integracji na poziomie organizmu
A.W3	Absolwent zna i rozumie rozwój narządów i całego organizmu zwierzęcego w relacji do organizmu dojrzałego
A.W20	Absolwent zna i rozumie polską i łacińską nomenklaturę medyczną
B.U7	Absolwent potrafi stosować aparaturę diagnostyczną, w tym radiologiczną, ultrasonograficzną i endoskopową, zgodnie z jej przeznaczeniem i zasadami bezpieczeństwa dla zwierząt i ludzi oraz interpretować wyniki badań uzyskane po jej zastosowaniu
B.W4	Absolwent zna i rozumie zasady postępowania diagnostycznego, z uwzględnieniem diagnostyki różnicowej, oraz postępowania terapeutycznego