Module title:	Topographic anatomy	ECTS	4
Polish translation:	Anatomia topograficzna		
Course:	**Veterinary Medicine**		

Module language: English		Stage: JM-FVM	
Form of studies: ■ intramural ☐ extramural	Type of module: ■ basic ☐ directional ■ mandatory ☐ elective	Semester: 4	■ winter semester ☐ summer semester
Academic year:	**2022/2023**	Catalogue number:	FVM-V-JMSS-04S-B04_20

Module coordinator:	**Dr hab. Michał Skibniewski**
Teachers responsible for the module:	**Academic teachers of the Institute of Veterinary Medicine; Department of Morphological Sciences/PhD students in accordance to the internal legal acts; visiting professors; other specialists in the field of study**
Objectives of the module:	The aim of the subject is to teach students about position of organs and structures in animal organism (dog, horse, cattle) in accordance to their skeletotopic, holotopic, syntopic and stratigraphic features. The aim of the subject is also to teach students spatial vision of the organism, which is the base for physical clinical examination, veterinary treatments as well as interpretation of results of diagnostic imaging. Among the main objectives of the subject is also showcasing of relation between specific anatomy of certain species and pathogenesis of the most common diseases; establishing base for further studies of clinical subjects such as clinical diagnostics, surgery or patomorphology and allowing the students to obtain skills in safe contact with a live animal during basic clinical examination. Lectures: 1) Head, neck, back - 3h; 2) Thoracic limb, pelvic limb - 3h; 3) Chest - 2h; 4) Abdomen - 4h; 5) Pelvic cavity - 3h; Exercises: 1) Head, neck, back (dog, cattle, horse - 2h exercises with each species) - 6h; 2) Thoracic limb, pelvic limb (dog, cattle, horse - 2h exercises with each species) - 6h; 3) Chest wall and cavity (dog, cattle, horse - 2h exercises with each species) - 6h; 4) Abdominal wall and abdominal cavity, pelvic cavity (dog, cattle, horse - 2h exercises with each species) - 6h; 5) Practical-theoretical credit - first term 2h; 6) Practical-theoretical credit - second term; 7) Credit for students with an excused absence - 2h The learning content of the lectures is complementary to the learning content of the exercises.
Teaching forms, number of hours:	a) Lectures; hours 15; b) Laboratory classes; hours 30;
Teaching methods:	Lectures: Presentations showing skletotopy, syntopy, holotopy and stratigraphy of structures and organs located in certain body areas. Description of anatomical features in accordance to clinical aspects with presentations of materials obtained during surgical interventions and diagnostic procedures with special regard to diagnostic imaging. Laboratory classes: Detailed description and demonstration on live animal (dog, horse, cattle) position and projection of certain structures and organs onto body surface; discussion of osseous structures making orientation landmarks during biopsies, injections and surgical interventions combined with palpation of abovementioned elements by the students under supervision of an academic teacher. Having students perform basic clinical activities making a base for further clinical studies. Those include: puls measurement, mucous membranes observation, palpation of lymph nodes, heart and lungs auscultation, estimation of lung fields, auscultation and palpation of abdominal and pelvic organs, limbs palpation, estimation of position of vascular trunks and nerves. Detailed schedule of the classes and detailed organization of consultations will be defined by the coordinator of the course at the beginning of semester.
Formal prerequisites and initial requirements:	Having passed Animal anatomy

Learning effects		Course outcomes:	Learning outcomes relative to the course outcomes	Impact on the course outcomes*
Knowledge:	1	knows stratigraphy, skeletotopy, holotopy and syntopy of structures and organs in selected domestic animals	A.W.1, A.W.2 B.W.1	3 1
	2	is able to indicate differences in topography of certain anatomical features between species, breeds and morphotypes	A.W.1, A.W.2 B.W.1, B.W.4	3 1
	3	is able to estimate normality of morphology and position of structures and organs in certain domestic animals	A.W.1, A.W.2, C.U.2, B.U.3 A.W.3, B.W.1, B.W.4,B.W.5, B.W.19	3 3 1 1 1
	4	knows and understands relation between anatomy of certain species with pathogenesis of selected diseases	A.W.1, A.W.2, A.W.20	3
	5	knows and understands importance of certain structures and organs in clinical practice	A.U.6, A.U.21, B.U.3, B.U.16, B.U.17, C.U.2	3 3 3 2

			A.U.13, A.U.14, A.U.19 A.U.12, A.U.15, A.U.16, A.U.23	2 1 1
Skills:	1	acquires skills in contact with a live animal	A.U.6, A.U.21, B.U.3, B.U.16, B.U.17, C.U.2 A.U.13, A.U.14, A.U.19 A.U.12, A.U.15, A.U.16, A.U.23	3 3 3 2 2 1 1
	2	is able to estimate position of structures and organs as well as their physiological range and examine them by sight, hearing and palpation	A.U.6, A.U.21, B.U.3, B.U.16, B.U.17, C.U.2 A.U.13, A.U.14, A.U.19 A.U.12, A.U.15, A.U.16, A.U.23	3 3 3 2 2 1 1
	3	acquires skills in making rational decisions in contact with a live animal taking into account health and safety procedures as well as animal welfare	A.U.6, A.U.21, B.U.3, B.U.16, B.U.17, C.U.2 A.U.13, A.U.14, A.U.19 A.U.12, A.U.15, A.U.16, A.U.23	3 3 3 2 2 1 1
	4	acquires the ability to work under stress	A.U.6, A.U.21, B.U.3, B.U.16, B.U.17, C.U.2, KS.10	3
Competences:	1	is aware of threats and own limitations in contact with a live animal	KS.4, KS.5, K.6, K.8 K.1., KS.7, KS.9	3 3 2
	2	is aware of importance of morphological knowledge in diagnostics and therapy of animal illnesses	KS.7, KS.8, KS.9	3
	3	understands the importance of anatomical knowledge in further veterinary education in the area of clinical subjects	KS.1, KS.4, KS.5 KS.7	3
	4	understands the need for knowledge consolidation and necessity for further knowledge acquisition as well as need for exchange of professional experience and opinions among professionals	KS.1,KS.4, KS.5, KS.7	2

Objectives of the module required to obtain learning effects:	The curriculum content to ensure the achievement of the learning outcomes includes knowledge of: position of organs and structures in animal organism (dog, horse, cattle) in accordance to their skeletotopic, holotopic, syntopic and stratigraphic features. To be able to palpate and determine the position of organs and structures of the animal body important in further clinical subjects and to acquire the basic skills for safe contact with a live animal during a clinical examination.
Assessment methods:	One oral practical-theoretical credit, covering theoretical lecture knowledge combined with demonstration of practical skills in determining the position of anatomical structures, internal organs and access sites during the performance of selected diagnostic and therapeutic procedures. In case of unforeseen, unusual circumstances mandatory remote teaching and remote assessment methods might be adopted.
Detail description of assessment methods; Formal documentation of learning outcome:	The semester includes theoretical and practical credit. The theoretical credit includes the material covered in the lectures. The practical assessment relates to elements of theory combined with a demonstration of practical skills in determining the position of anatomical structures, internal organs and access sites during the performance of selected diagnostic and therapeutic procedures. **The theoretical assessment will take the form of a written test, from which the student may obtain a maximum of 50 points.** **During the practical assessment, the student will be asked 5 questions, which will be graded on a scale of 0-10 points.** **The assessment will be based on the ability to localise selected anatomical structures, theoretical knowledge and correct contact with the animal. The maximum number of points for the practical test is 50.** **During the credit, the student will be asked 5 questions which will be graded on a 0-10 point scale.** **Assessment will be based on the ability to localise selected anatomical structures, theoretical knowledge and correct contact with the animal.** **The final mark is the sum of the points from the theoretical and practical assessments.** Grading scale: 0-50 points – 2 52-60 points – 3 61-70 points – 3,5 71-80 points – 4 81-90 points – 4,5 91-100 points – 5

	Absence during tests need to be excused no later than 1 week after the absence's cause has finished. Additional terms should be set for students with excused absences. Unexcused absence is equal to obtaining 0 points. No extra assessment methods are anticipated. eHMS entry. Records collected in the course portfolio i.e. individual records of student results, presence lists, database of oral and written questions, written assessments of the students.
Elements impelling final grade:	Oral practical-theoretical test 100%
Teaching base:	Lecture room in building 24, prosectories in Division of Comparative and Clinical Anatomy, Department of Large Animal Diseases with Clinic, Obory Cattle Farm
Mandatory and supportive materials : 1. H.E. Koenig, Veterinary Anatomy Domestic Mammals - Textbook and Colour Atlas. Blackwell Science. 2006 2. K. M. Dyce, Wolfgang O. Sack, C. J. G. Wensing Textbook of Veterinary Anatomy 4th edition. Elsevier. 2010 3. Done S.H., Goody P.C., Evans S.A., Strickland N.C. Color Atlas of Vetreinary Anatomy. The Dog&Cat, Mosby, 2005 4. Wissdorf H., Gerhards H., Huskamo B., Deegen E. Praxisorientierte anatomie Und propädeutik des pferdes. Verlag M&H. Schaper Alfred, Hannover, 2002 5. Constantinescu G.M. Guide pratique d'anatomie du chien et du chat. MED'COM, Paris, 2005 6. Berg R. Angewandte und Topographiische Anatomie der Haustiere. G.F. Verlag Jena, 1973 7. Relevant scientific publications, including those of the module coordinator. Relevant scientific publications including those of the module coordinator.	
ANNOTATIONS	

* 3 – complete and detailed, 2 – moderate, 1 – basic.

Quantitative summary of the module:

Estimated number of work hours per student (contact and self-study) essential to achieve presumed learning outcomes of the module - base for quantifying ECTS:	**100 h**
Total ECTS points, accumulated by students during contact learning:	**2 ECTS**