

Module code	M_WE_SEM2 ANAT 2
Field of study	Veterinary medicine
Module name, also the name in English	Anatomia zwierząt 2
	Animal anatomy 2
Language of instruction	Polish
Module type	Mandatory
Level of studies	Long-cycle master's degree studies
Form of study	Full-time
Year of study in the field of study	I
Semester of study in the field of study	II
ECTS credits, divided into contact/non-contact hours	7 (3,5/3,5)
Academic title/degree, name of the person responsible for the module	Lek wet Sylwia Mozel
Unit teaching the module	Department of Animal Anatomy and Histology Faculty of Animal Anatomy
Module objective	The aim of the module is to teach students the correct (general and detailed) structure of the muscular, vascular and peripheral nervous systems of the head, neck, thoracic limb, pelvic limb (horse, dog). To teach students to present the structure of abdominal muscles and diaphragm in domestic animals. To teach student to provide a detailed description of individual muscles (origin, insertion, innervation, vascularisation and function). To familiarise students with the course and division of main vessels (arterial, venous, lymphatic), course and division of peripheral nerves, as well as the structure of nerve plexuses of head and neck, thoracic and pelvic limbs. To familiarise students with the structure of organa digitalia of the canine and ruminant including skeletal and muscular elements in relation to the layered structure of the integumentary system. To pass on the knowledge about the structure of the skin and its appendages (mammary gland, hair). To teach students the correct use of Polish and Latin anatomical nomenclature in the range of myology, angiology, peripheral nervous system and integumentary system and its appendages. To instil in the students the knowledge which forms the basis for teaching topographical anatomy and clinical sciences.
The learning outcomes for the module include a description of the knowledge, skills and social competences that the student will gain after completing the module.	Knowledge:
	K1. Student knows the correct general and detailed structure (origin, insertion, innervation, vascularisation and function) of skeletal muscles.
	K2. Student knows the location of the various skeletal muscles, vessels, and nerves.
	K3. Student knows the division and course of the major arterial and venous vessels and peripheral nerves of the head and neck, thoracic and pelvic limbs.
	K4. Student knows Polish and Latin anatomical nomenclature in the field of myology, angiology and peripheral nervous system.

	Skills:
	S1. Student is able to independently dissect the muscles, vessels and nerves in the head and neck, thoracic limb and pelvic limb.
	S2. Student is able to identify individual muscles, blood vessels and nerves in the head and neck, thoracic limb and pelvic limb.
	S3. Student is able to explain differences between species concerning the structure and function of individual muscles and in the course of blood vessels and nerves.
	S4. Student is able to use Polish and Latin anatomical nomenclature in the field of myology, angiology and peripheral nervous system.
	Social competences:
	Sc1. Student is aware of the importance of interdisciplinary morphological knowledge in myology, angiology and the peripheral nervous system in the study of clinical subjects
	Sc2. Student is prepared to use and critically evaluate the scientific literature in myology, angiology, and the peripheral nervous system.
	Sc3. Student is able to correctly use anatomical nomenclature in the field of myology, angiology and peripheral nervous system.
	Sc4. Student is able to interact with other students while dissecting.
Prerequisites and additional requirements	Credit for the module Animal Anatomy 1

<p>Module program content</p>	<p>Lectures:</p> <ol style="list-style-type: none"> <li>1. Discussion of the module credit requirements, tests and the rules for passing tests, recommended literature - 2 hours.</li> <li>2. Organa digitalia of cows - 2 hours</li> <li>3. Organa digitalia of cats and dogs - 2 hours</li> <li>4. Anatomical structure of the diaphragm - 2 hours</li> <li>5. Abdominal wall muscles part 1 - 2 hours</li> <li>6. Abdominal wall muscles part 2 - 2 hours</li> <li>7. Hernias, inguinal ring - 2 hours</li> <li>8. General structure of the mammary gland - 2 hours</li> <li>9. Detailed structure of the mammary gland - 2 hours</li> <li>10. Innervation, vascularisation, mammary lymph nodes - 2 hours</li> <li>11. Skin structure - 2 hours</li> <li>12. Structure of hair, sweat and sebaceous glands - 2 hours</li> <li>13. Skin innervation and vascularisation - 2 hours</li> <li>14. General structure of the lymphatic system - 2 hours</li> <li>15. Detailed structure of the lymphatic system - 2 hours</li> </ol> <p>Practical classes:</p> <ol style="list-style-type: none"> <li>1. Discussion and dissection of pectoral muscles of thoracic limb, muscles of shoulder joint - 3 hours</li> <li>2. Discussion and dissection of the muscles of the elbow joint, radial-ulnar joint, carpal joint and muscles around phalanges of the thoracic limb - 3 hours</li> <li>3. Discussion and dissection of blood vessels and nerves of the thoracic limb - 3 hours</li> <li>4. Testing knowledge and skills of practical recognition of muscles, blood vessels and nerves of the thoracic limb - 3 hours</li> <li>5. Discussion and dissection of pectoral muscles of pelvic limb, muscles of hip joint - 3 hours</li> <li>6. Discussion and dissection of the muscles of the knee joint, tarsal joints and muscles around phalanges of the pelvic limb - 3 hours</li> <li>7. Discussion and dissection of blood vessels and nerves of the pelvic limb - 3 hours</li> <li>8. Testing knowledge and skills of practical recognition of muscles, blood vessels and nerves of the pelvic limb - 3 hours</li> <li>9. Discussion and dissection of the facial muscles. Discussion of the CN VII - 3 hours</li> <li>10. Discussion and dissection of the masseter muscles. Discussion of the CN V - 3 hours</li> <li>11. Discussion and dissection of blood vessels of head and neck. Discussion of the CN IX, X - 3 hours</li> <li>12. Discussion and dissection of the suboccipital muscles. Discussion of the CN XII - 3 hours</li> <li>13. Discussion and dissection of the neck muscles. Discussion of the CN XI - 3 hours</li> <li>14. Testing knowledge and skills of practical recognition of muscles, blood vessels and nerves of the head and neck - 3 hours</li> </ol>
-------------------------------	--

List of core and supplementary literature	<p>1.König H., Liebich H. – Veterinary Anatomy of Domestic Mammals, Georg Thieme Verlag.</p> <p>2.Dyce K.M., Sack W.O., Wensing C.J.G.-Textbook of Veterinary Anatomy, Elsevier</p> <p>3. Shaller O. Edited by: Constantinescu G.M.- Illustrated Veterinary Anatomical Nomenclature, Georg Thieme Verlag.</p> <p>4.Hermanson J.W., Lahunta A., Evans H.E. - Miller and Evans' Anatomy of the dog. Elsevier</p>		
Planned forms/activities/teaching methods	Lecture - multimedia presentations, slides, museum pieces. Dissecting exercises - anatomical dissection		
Verification methods and ways of documenting the achieved learning outcomes.	<p>In order to pass module 2, the student has to get three practical and theoretical (component) credits (pass tests) on the anatomy of 1) muscles, vessels and nerves of the thoracic limb, 2) muscles, vessels and nerves of the pelvic limb, 3) muscles, vessels and nerves of the head, neck and back. Each of the tests takes place in written form with adequate (student-made) specimens of the above-mentioned body parts. During each credit, students receive an answer sheet, in which they are supposed to first identify the anatomical structures marked with different coloured pins on the specimen. During the test, the student is required to use Polish and Latin nomenclature. 1 point was given for each correct answer. To get credit, it is necessary to score at least 50% of all possible points. To get credit, it is necessary to pass all three tests. The final grade for module 2 shall be the arithmetic mean of the three tests. In addition, to pass the semester, attendance in at least 85% of the classes in the module plan is required.</p>		
ECTS credits	<b>CONTACT</b>		
		Hours	ECTS credits
	Lectures	30	1.2
	Practical classes	41	1,62
	Consultations	5	0,2
	retake test	6	0,24
	Examination / retake examination	6	0,24
	<b>TOTAL contact hours</b>	<b>88</b>	<b>3,5</b>
	<b>NON-CONTACT</b>		
	Preparation for classes	25	1
	Literature study	25	1
	Preparation for the exam	36	1,5
	<b>TOTAL non-contact hours</b>	<b>86</b>	<b>3,5</b>
	The workload of activities that requires direct participation of an academic teacher	Attendance at lectures	30
Attendance at practical classes		41	1,62
Consultations		5	0,2
retake test		6	0,24
Examination / retake examination		6	0,24
<b>TOTAL with direct involvement of the teacher</b>		<b>88</b>	<b>3,5</b>

<p>Relation of module learning outcomes to course learning outcomes.</p>	<p>K1 --- A.W1. ++; A.W2. ++  K2 --- A.W1. ++; A.W2. ++  K3 --- A.W1. ++; A.W2. ++  K4 --- A.W20. ++  S1 --- A.U6. ++; A.U13. ++; A.U15. ++  S2 --- A.U6. ++; A.U13. ++; A.U15. ++  S3 --- A.U6. ++; A.U13. ++; A.U15. ++  S4 --- A.U15. ++  Sc1 --- K4) ++; K8) ++  Sc2 --- K4) ++; K8) ++; K9) ++  Sc3 --- K4) ++; K8) ++;  Sc4 --- K9) ++</p>
<p>Elements and values affecting the final grade</p>	<p>Credit 1 - value 33.33%  Credit 2 - value 33.33%  Credit 3 - value 33.33%</p>