

Code of subject	M_WE SEM1 BIOL
Field of study	Veterinary medicine
Name of the training module including the Polish name	Animal and plant biology Biologia świata zwierząt i roślin
Language of instruction	English
Module type	Mandatory
Level of studies	Long-cycle master's degree studies
Form of study	Full-time
Location in the programme (year)	1
Location in the programme (semester)	1
Number of ECTS credits with a division into contact/noncontact	2 (1,64/0,36)
Name and surname of the person in charge	Dr Krzysztof Puk
Unit offering the subject	Sub-Department of Fish Diseases and Biology, University of Life Sciences in Lublin
Aim of the module	Students acquire knowledge and skills in the field of phylogenetic development of animals and plants and the basics of medical botany.
Learning outcomes	<p>Knowledge:</p> <p>K1 Students describes and characterizes the phylogenesis of the basic systems of invertebrate and vertebrate animals.</p> <p>K2 Students knows the basic plant-derived constituents used in medicine</p> <p>Skills:</p> <p>S1 Students can classify of living forms and characterize biological interactions in animals and plants.</p> <p>S2 Students can indicate the possibility of using plant-derived constituents as drugs or poisonous substances.</p> <p>Social competences:</p> <p>C1 Understands the need to classify of living forms and to look for alternative methods of fighting animal diseases.</p>
Preliminary and additional requirements	No requirements

<p>Contents of the training module – a compact description</p>	<p>The topics of the classes include:</p> <ol style="list-style-type: none"> 1. Animal systematics. General characteristics of protists. (2 hours.) 2. Various forms of biological interactions (protists) (2 hours.) 3. Phylogenesi s of the digestive system of invertebrates and vertebrates. (2 hours.) 4. Phylogenesi s of the excretory system of invertebrates and vertebrates. (2 hours.) 5. Phylogenesi s of the respiratory system of invertebrates and vertebrates. (2 hours.) 6. Phylogenesi s of the circulatory system of invertebrates and vertebrates. (2 hours.) 7. Phylogenesi s of the skeletal system. (2 hours.) <p>The topics of the lectures include:</p> <ol style="list-style-type: none"> 1. Organization lecture. Animal systematics. (3 hours) 2. Various forms of biological interactions (plants, animals). (2 hours.) 3 - 7. Elements of medical botany: medicinal and poisonous plants and their medicinal and poisonous compounds (10 hours) 8-10. Plant systematics (5 hours)
<p>Recommended and obligatory reading list</p>	<ol style="list-style-type: none"> 1. Zoology: Stephen A. Miller, Todd A. Tupper. McGraw-Hill Education 2. The dissection of vertebrates : a laboratory manual: Gerardo De Iullis, Dino Pulerà. 3. Biology: Neil A. Campbell, Jane B. Reece, Lisa A. Urry, Michael L. Cain, Steven A. Wasserman, Peter V. Minorsky, Robert B. Jackson 4. Medicinal Plants: Biodiversity and Drugs: M. K. Rai, Geoffrey A. Cordell, Jose L. Martinez, Mariela Marinoff, Luca Rastrelli
<p>The intended forms/activities/ teaching methods</p>	<p>Lectures, classes, reading recommended literature, preparation for classes, preparation for partial credits and exam, exam. Work with microscopes (preparation of microscope slides, viewing live and preserved species).</p>
<p>Methods of verification and documentation forms of the achieved learning outcomes</p>	<p>Knowledge. Short written tests on each class - a list with grades, presence lists. Final test - a list with grades, examination protocol.</p> <p>Skills. Active participation in laboratory classes (it is necessary to pass all classes) - absence on classes must be passed during consultations. Presence lists, examination protocol</p> <p>Social competences. Active participation in laboratory classes (it is necessary to pass all classes) - absence on classes must be passed during consultations. Presence lists, examination protocol.</p>

Balance of ECTS credits	Type of course	Number of contact hours	ECTS points
	lectures	20	0,8
	classes	15	0,6
	consultation	3	0,12
	exam	3	0,12
		Number of not contact hours	ECTS points
	Prepare for training	4	0,16
Prepare for tests	4	0,16	
Exam preparation	1	0,04	
Total	50	2,0	
Number of contact hours	<ul style="list-style-type: none"> - participation in lectures - 15 hours - participation in laboratory classes - 15 hours - participation in consultations - 4 hours - participation in final exam - 2 hours <p>A total of 36 hours, which corresponds to 1,44 ECTS points</p>		
Relationship between subject learning outcomes and veterinary studies learning outcomes	<p>K1 – A.W2 ++ K2 – A.W2 ++ K3 – A.W17 ++ S1 – A.U7+ S2 – A.U11 ++ Sc1 – K4 +</p>		
Impact of selected compounds to final grade	<p>Classes: Short written tests. Passing threshold is 6 points which is 60% of maximal score. First term and retake, both have the same form.</p> <p>Final test exam (30 questions). The grading scale:</p> <p>5.0 (28-30 correct answers) 4.5 (26-27 correct answers) 4.0 (24-25 correct answers) 3.5 (22-23 correct answers) 3.0 (18-21 correct answers) 2.0 (<18 correct answers)</p> <p>The final grade: Final test - 100%.</p>		