

Module code	M_WE-SEM8 PW 1F/2F CHBEZ WOD
Field of study	Veterinary medicine
Module name, also the name in English	Diseases of aquatic invertebrates Choroby bezkręgowców wodnych
Language of instruction	English
Module type	elective
Level of studies	Long-cycle master's degree studies
Form of study	Full-time
Year of study in the field of study	IV
Semester of study in the field of study	8
ECTS credits, divided into contact/non-contact hours	1 (0.7/0.3)
Academic title/degree, name of the person responsible for the module	Dr hab. Leszek Guz, prof. ucz.
Unit teaching the module	Sub-Department of Fish Diseases and Biology
Module objective	Introducing students to the biology, breeding, diseases and treatment of aquatic invertebrate animals, i.e. sponges, angiosperms, corals, shrimps, crayfish, mollusks, echinoderms, tunicates, and anurans. Familiarization with aquaculture animal regulations.
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. The student knows the biology of the aquatic invertebrates discussed and the infectious agents that cause disease and the disorders and symptoms of the body in the course of disease.
	K2. The student knows the basics of diagnosis, treatment, and prevention of aquatic invertebrate diseases, welfare principles, and basic regulations for aquaculture animals.
	Skills:
	S1. The student is able to perform veterinary medical history/examination, select and administer rational chemotherapy/prophylaxis.
	Social competences:
C1. Willingness to formulate correct conclusions from the observation of sick animals in order to undertake proper diagnosis/treatment/prevention of animal diseases.	
Prerequisites and additional requirements	None

Module program content	<p>Exercise 1. Organisation. Regulatory provisions for the rearing and culture of invertebrate aquaculture animals. (2 hrs.)</p> <p>Exercise 2. Biology, breeding, diseases and treatment - sponges, caecilians. (2 hrs.)</p> <p>Exercise 3. Biology, breeding, diseases and treatment - corals. (2 hrs.)</p> <p>Exercise 4. Biology, breeding, diseases and treatment - shrimp. (2 hrs.)</p> <p>Exercise 5. Biology, breeding, diseases and treatment - crayfish. (2 hrs.)</p> <p>Exercise 6. Biology, breeding, diseases and treatment - molluscs. (2 hrs.)</p> <p>Exercise 7. Biology, breeding, diseases, and treatment - echinoderms, tunicates, anurans. (2 hrs.)</p>		
List of core and supplementary literature	<p>Gregory A. Lewbart (editor): Invertebrate medicine. John Wiley &amp; Sons 2012.</p> <p>Journals: Invertebrate Pathology, Koralle.</p>		
Planned forms/activities/teaching methods	<p>Laboratory exercises, studying recommended reading, preparing for class, preparing a presentation on a given topic, demonstration, consultation.</p> <p>Working with microscopes/loupes (preparing slides), viewing living and fixed organisms.</p>		
Verification methods and ways of documenting the achieved learning outcomes.	<p><b>Knowledge.</b> Exercises, presentations/projects. It is necessary to pass all exercises (i.e. attendance at all classes - absences from classes must be passed at a date agreed with the teacher). Final Test. Documentation: list with grades and question sheet with grades.</p> <p><b>Skills.</b> Active participation in classes (it is necessary to complete all exercises, i.e. attendance at all classes - absences from classes must be passed/made up during the consultations or at another time agreed with the teacher) - a prerequisite for passing the final test. Documentation: attendance list.</p> <p><b>Competences.</b> Active participation in classes (attendance at all classes - a prerequisite for passing the final test). Absences from classes must be made up during consultations or at another time agreed with the instructor. Documentation: attendance list.</p>		
ECTS credits	<b>Contact</b>		
		<i>Hours</i>	<i>ECTS credits</i>
	practical classes	14	0.56
	Consultations	3	0.1
	Getting credit for classes	1	0.04
	<b>TOTAL contact hours</b>	<b>18</b>	<b>0.7</b>
	<b>NON-CONTACT</b>		
	preparation for classes	3	0.1
	project preparation	4	0.13
	literature study	2	0.07

	<b>TOTAL non-contact hours/ ECTS credits</b>	<b>9</b>	<b>0.3</b>
	attendance at practical classes	14	0.56
	Consultations	3	0.1
	colloquium in practical classes	1	0.04
	<b>TOTAL with direct involvement of the teacher</b>	<b>18</b>	<b>0.7</b>
The workload of activities that requires direct participation of an academic teacher	attendance at practical classes	14	0.56
	participation in consultations	3	0.1
	getting credit for classes	1	0.04
	<b>TOTAL of practical character</b>	<b>18</b>	<b>0.7</b>
Relation of module learning outcomes to course learning outcomes.	K1 - WE_W02, WE_W07, WE_W08 ++ K2 - WE_W16, WE_W17, WE_W18 ++ S1 - WE_U14, WE_U16, WE_U25 ++ C1 - WE_K6 +		
Elements and values affecting the final grade	Final credit (20 question test). Grading scale applicable for final credit: 5.0 (19-20 correct answers), 4.5 (17-18), 4.0 (15-16), 3.5 (13-14), 3.0 (11-12), 2.0 (<11). The final grade for the course consists of 100% of the final test score (a passing grade is required).		