

Module code	M_WE_SEM4 PW 1C/2C FIZJ WYS
Field of study	Veterinary medicine
Module name, also the name in English	Exercise physiology Fizjologia wysiłku
Language of instruction	English
Module type	optional
Level of studies	Long-cycle master's degree studies
Form of study	Full-time
Year of study in the field of study	II
Semester of study in the field of study	IV
ECTS credits, divided into contact/non-contact hours	1 (0.64/0.36)
Academic title/degree, name of the person responsible for the module	Dr hab. n. wet. Sylwester Kowalik, University Professor
Unit teaching the module	Department of Animal Physiology
Module objective	The classes conducted within the framework of the optional course "Exercise Physiology" aim to familiarise students with selected topics concerning work and exercise physiology in animals with a particular emphasis on the physiological basis of organs and motor systems, conditioning not only the proper locomotor abilities but also determining the achievement in sports. There are also discussed factors that improve overall physical fitness and the ability to assess it.
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.	<p>Knowledge:</p> <p>K1. Students know and describe normal structures of the animal organism that are responsible for locomotor activity (skeletal and muscular systems) and they explain their functions during exercise load</p> <p>K2. Students describe and explain the functions of the nervous, circulatory, respiratory, endocrine systems and body fluids subjected to exercise load</p> <p>S1. Students can explain the course of basic physiological and metabolic processes of particular organs and tissues during exercise load</p> <p>Sc1. Students are willing to use the knowledge of exercise physiology in future professional work</p> <p>Sc2. Students are willing to continue to expand their knowledge in the field of exercise physiology through continuing education and post-graduate courses</p>
Prerequisites and additional requirements	none

Module program content	The functioning of the mammalian organism (mainly horses, dogs, humans) during exercise load and opportunities to improve exercise fitness (including sports results). Relationships between exercise load and health maintenance of humans and companion animals. Determinants of physical fitness. Functioning of individual organs and systems during training load - nervous system, muscular system, skeletal system, circulatory system, respiratory system, endocrine system, body fluids. Factors limiting muscle work and conditioning physical fitness, physiological consequences of physical inactivity, physical activity in prevention of selected disease entities (mainly metabolic diseases). The importance of physical activity during adolescence and in adult life.
List of core and supplementary literature	<ol style="list-style-type: none"> <li>1. Equine exercise physiology. David Marlin, Kathryn J. Nankervis. John Wiley and Sons Ltd, Oxford, United Kingdom</li> <li>2. The athletic horse: principles and practice of equine sports medicine. David R. Hodgson, Catherine M. McGowan, Kenneth McKeever. Elsevier Health Sciences, London, United Kingdom</li> <li>3. Exercise physiology: nutrition, energy, and human performance. William D. McArdle, Frank I. Katch, Victor L. Katch. Lippincott Williams and Wilkins, Philadelphia, United States</li> </ol>
Planned forms/activities/teaching methods	Classes using multimedia presentations. Discussion Papers.
Verification methods and ways of documenting the achieved learning outcomes.	<p>Knowledge: final credit test, preparation of a paper.  Skills: preparation of a paper  Social competences: discussion</p> <p>The credit test consists of one-choice questions graded on a scale of 0-1 points, testing the theoretical knowledge of the course Exercise Physiology. To earn a passing grade, students must receive a minimum of 51% test points.</p> <p>Scale of points for final test grade:  Number of points: Grade (as a percentage of correct answers):  0-50% - 2.0 (unsatisfactory)  51-60% - 3.0 (satisfactory)  61-70% - 3.5 (satisfactory plus)  71-80% - 4.0 (good)  81-90% - 4.5 (good plus)  91-100% - 5.0 (very good)</p> <p>Student attendance in classes is mandatory. Attendance lists will be archived later, and recorded attendance as well as activity during classes will affect the final course grade. The overall grade is also affected by the grade of the papers prepared by the students.</p>

ECTS credits	<table border="1"> <thead> <tr> <th></th> <th>Hours</th> <th>ECTS credits</th> </tr> </thead> <tbody> <tr> <td>practical classes</td> <td>15</td> <td>0.6</td> </tr> <tr> <td>credit</td> <td>1</td> <td>0.04</td> </tr> <tr> <td>Student's own work</td> <td>9</td> <td>0.36</td> </tr> <tr> <td>TOTAL</td> <td>25</td> <td>1.00</td> </tr> </tbody> </table>		Hours	ECTS credits	practical classes	15	0.6	credit	1	0.04	Student's own work	9	0.36	TOTAL	25	1.00
	Hours	ECTS credits														
practical classes	15	0.6														
credit	1	0.04														
Student's own work	9	0.36														
TOTAL	25	1.00														
The workload of activities that requires direct participation of an academic teacher	<table border="1"> <thead> <tr> <th></th> <th>Hours</th> <th>ECTS credits</th> </tr> </thead> <tbody> <tr> <td>practical classes</td> <td>15</td> <td>0.6</td> </tr> <tr> <td>credit</td> <td>1</td> <td>0.04</td> </tr> <tr> <td>Total</td> <td>16</td> <td>0.64</td> </tr> </tbody> </table>		Hours	ECTS credits	practical classes	15	0.6	credit	1	0.04	Total	16	0.64			
	Hours	ECTS credits														
practical classes	15	0.6														
credit	1	0.04														
Total	16	0.64														
Relation of module learning outcomes to course learning outcomes.	<p>K1 - A.W.1 +  K2 - A.W.2 +  K3 - A.W.4. +  S1. AU4+, AU5+  Sc1. K1 +  Sc2. K8 +</p>															
Elements and values affecting the final grade	Final course grade: final course credits - 70% of the course grade, attendance - 10%, the paper grade - 20%.															