



Module syllabus: *Basics of animal physiology*

1. Overall information

Module coordinator	dr hab. Agnieszka Babczyńska
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ECTS	5
Method for the verification of learning outcomes	<p>The final grade for the module is weighted on the average of the following student activities:</p> <ul style="list-style-type: none">- Active participation in laboratory classes (continuous evaluation of practical skills, tests and reports) (0.7)- Written final exam (0.3) <p>To be awarded a final grade, the student must have passed each activity of the module.</p> <p>Grades: below 51% – fail (F); 52-60% – with minimum academic criteria (E); 61-65% – satisfactory (D); 66-75% – good (C); 76-85% – very good (B), ≥ 85% – excellent (A)</p>

2. Description of student activity and work

Lecture/discussion sessions	
Responsible instructor	dr hab. Agnieszka Babczyńska
Content	<p>The main objective of this module is to provide students with an understanding of the physiological processes that take place in animal organisms, the levels of their regulation, the elements of the biochemical and molecular mechanisms of the processes and possible modifying factors, as well as to help them to develop their ability to critically interpret the published data on animal physiology.</p> <p>Lectures/discussion sessions comprise the core subjects in physiology, including a general overview of homeostasis at an organismal level and the molecular basis of the processes and their regulation.</p> <p>Lecture/discussion session content:</p> <p>Animal physiology is an experimental and descriptive subject. The sessions are divided according to functional parts and compartments (systems and organs) of an organism: the nervous system, physiology of memory, reflexes, neuromediators, senses and receptors, respiration, heart and circulatory system, blood, metabolic rate and alimentary system, excretory system, basics of endocrinology, stress and work physiology, reproduction and development.</p>
Number of didactic hours (contact hours)	15
Literature	<p>https://www.researchgate.net/publication/286456096_DrPBReddy's_TEXT_BOOK_OF_ANIMAL_PHYSIOLOGY</p> <p>https://en.wikibooks.org/wiki/Anatomy_and_Physiology_of_Animals</p>





Laboratory	
Responsible instructors	Staff of the Department of Animal Physiology and Ecotoxicology and the Department of Ecology
Laboratory projects	Project 1: Excitability of neurons and muscles Project 2: Physiology of nervous system Project 3: Physiology of sensory organs. Project 4. Physiology of respiration. Project 5: Blood Project 6. Circulatory system and heart Project 7. Digestion and physiology of alimentary tract Project 8. Metabolism and physiology of thermoregulation Project 9. Physiology of excretory system Project 10. Stress and sport physiology Project 11. Hormonal regulation Project 12. Reproductive system
Methodology of laboratory classes	Experiments will be performed in small groups under the supervision of the instructors and will include: <ul style="list-style-type: none">• Designing and accomplishing the procedure• Calculating and presenting the results• Protocols commitment and presentation
Number of didactic hours (contact hours)	30
Literature	https://www.researchgate.net/publication/286456096_DrPBReddy's_TEXT_BOOK_OF_ANIMAL_PHYSIOLOGY https://en.wikibooks.org/wiki/Anatomy_and_Physiology_of_Animals

3. Forms of verification

Continuous evaluation of knowledge, activity and practical skills	
Grades	Grades are awarded on a scale of A-F, where A is the best and F is a fail. <u>An excellent performance (A)</u> – the student actively participates in the laboratory work, demonstrates an excellent understanding of the experimental procedures (their aims, sequence and outcomes), is engaged and creative in solving current problems and in assessing and presenting the experimental results. <u>A good performance (C)</u> – the student demonstrates good judgment and knowledge, correctly performs an experiment, correctly exhibits a sense of the experimental procedure, properly assesses and presents the experimental results. <u>A satisfactory performance (E)</u> – the student demonstrates satisfactory judgment and knowledge, is poorly engaged and needs additional help to finish the experiment and the final assessment of the experimental results correctly, presents a satisfactory presentation of experimental results. <u>A performance that does not meet the minimum academic criteria (F)</u> – the student is not engaged in the experiment, does not exhibit a sense of the





	experimental procedures, poorly interprets and presents the experimental results.
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Reports from realised laboratory projects

Evaluation	Evaluation is comprised of judgment and knowledge related to the sense and methods of the laboratory project, engagement in the realisation, quality of assessment and presentation of the experimental results, use of reference materials. Grades for reports are awarded on a scale of A-F, where A is the best and F is a fail. An excellent report (A) – without any essential errors Fail (F) – no report
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Final exam

Grades	Grades are awarded on a scale of A-F, where A is the highest and F is failing fail. Excellent (A) – the student presents a fluent knowledge of the mechanisms in homeostasis and physiology, has minimal errors that do not affect the quality of the presentation. Good (C) – the student presents a good knowledge of the mechanisms in homeostasis and physiology, makes rare but subtle errors. Satisfactory (E) – the student exhibits a satisfactory knowledge, but with a poor understanding of the mechanisms in homeostasis and physiology and makes subtle errors. Fail (F) – the student does not present a satisfactory knowledge of the mechanisms in homeostasis and physiology and makes many substantial errors, which disqualify their presentation.
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