

**Subject card**

<b>Subject name and code</b>	Evolution and systematics of chordates, PG_00196819						
<b>Field of study</b>	Biology						
<b>Date of commencement of studies</b>	October 2026	<b>Academic year of realisation of subject</b>			2026/2027		
<b>Education level</b>	Bachelor's studies	<b>Subject group</b>			Obligatory subject group in the field of study Subject group related to scientific research in the field of study		
<b>Mode of study</b>	full-time studies	<b>Mode of delivery</b>			at the university		
<b>Year of study</b>	1	<b>Language of instruction</b>			Polish		
<b>Semester of study</b>	2	<b>ECTS credits</b>			3.0		
<b>Learning profile</b>	academic	<b>Assessment form</b>			exam		
<b>Conducting unit</b>	Laboratory of Vertebrate Ecology and Ethology -> Department of Vertebrate Ecology and Zoology -> Faculty of Biology -> Rector						
<b>Name and surname of lecturer (lecturers)</b>	<b>Subject supervisor</b>		prof. dr hab. Dariusz Jakubas				
	<b>Teachers</b>						
<b>Lesson types</b>	<b>Lesson type</b>	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	<b>Number of study hours</b>	30.0	0.0	0.0	0.0	0.0	30
	E-learning hours included: 0.0						
<b>Learning activity and number of study hours</b>	<b>Learning activity</b>	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	<b>Number of study hours</b>	30		4.0		41.0	75
<b>Subject objectives</b>	1. To introduce the basic and most important concepts of chordates evolution and systematics. 2. to learn and understand the methods used in systematics. 3. to review of selected representatives of the different systematic groups of the choradates 4. To understand the fundamentals of living organisms and their interrelationships.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[BIOLL3_W01] The graduate knows and understands at an advanced level the structure and functioning of organisms at all levels of the organization of life - from the cell (prokaryotic and eukaryotic), through tissues, organs, to the organism - as well as the relationships between them and their adaptations to the environment		
	[BIOLL3_U09] The graduate is able to learn independently and plan her/his own development in an organized and controlled manner		
	[BIOLL3_U03] The graduate is able to search for, select and critically analyze information from various sources, including scientific literature and electronic databases, as well as read and understand scientific texts in Polish and English		
	[BIOLL3_W03] The graduate knows and understands the principles of life functioning at the level of populations, biocenoses and ecosystems, the determinants of biological diversity as well as the mechanisms and molecular basis of the evolution of organisms		
Subject contents	Characteristics, origins and main trends in the evolution of chordates. Basic concepts of chordate anatomy. Structure and evolution of systems. Aromorphoses and idioadaptations in vertebrate evolution. Different concepts of systematic classification (including cladistic concepts). Overview of the different systematic groups of chordates.		
Prerequisites and co-requisites	Basic knowledge of animal histology is required		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	exam test	51.0%	100.0%
Recommended reading	Basic literature	<p>Błaszak Cz. 2015. Zoologia Tom 3 Część 1 Szkarłupnie - płazy PWN, Warszawa</p> <p>Błaszak Cz. 2020. Zoologia Tom 3 Część 3 Ssaki PWN, Warszawa</p> <p>Kardong K.V. 1998-2018. Vertebrates. Comparative Anatomy, Function, Evolution. WCB McGaw-Hill Comp. Inc., New York.</p> <p>Szarski H. (red). 1976. Anatomia porównawcza kręgowców. PWN, Warszawa</p> <p>Jasiński A. 1973. Zootomia kręgowców. PWN, Warszawa.</p> <p>Grodziński Z. (red). 1967. Zoologia. Przedstrunowce i strunowce. PWN, Warszawa.</p>	
	Supplementary literature	Szarski H. 1982-2023. Historia Zwierząt Kręgowych. PWN. Warszawa.	
	eResources addresses		
Example issues/ example questions/ tasks being completed	<p>what features are common to all chordates</p> <p>what are the adaptations of birds to flight in the anatomy of different systems</p> <p>what are the most important stages in the invasion of land by vertebrates</p> <p>structure of mammalian limbs as an adaptation to different forms of locomotion</p>		
Work placement	Not applicable		

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