University of Gdańsk

Subject card

Subject name and code	Biology, PG_00144443		
Field of study	Environmental Protection		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2024/2025
Education level	Bachelor's studies	Subject group	Obligatory subject group in the field of study
Mode of study	full-time studies	Mode of delivery	at the university
Year of study	1	Language of instruction	Polish
Semester of study	1	ECTS credits	2.0
Learning profile	academic	Assessment form	credit
Conducting unit	Laboratory of Parasitology and General Zoology -> Katedra Zoologii Bezkręgowców i Parazytologii -> Faculty of Biology -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	dr Sławomira Fryderyk	
	Teachers	dr Sławomira Fryderyk prof. dr hab. Joanna Izdebska	

Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	0.0	0.0	0.0	30
	E-learning hours included: 0.0						

Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan	Participation in consultation hours	Self-study	SUM
	Number of study hours	30	5.0	15.0	50

Subject objectives	1. To learn the fundamentals of the structure, biology and classification of living organisms. 2 To understand the biological processes that determine life at different levels of its organisation. 3. To be able to recognise and classify different groups of organisms.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[OŚL3_K05] Identifies the level of her/his knowledge and skills, demonstrates the need to update knowledge about the environment and its protection, demonstrates the need for continuous professional training and personal development.	Understands the need for further education, to update his/her knowledge of the environment and its protection	[SK1] oral statement/conversation/ discussion
[OŚL3_U11] Uses statistical methods as well as algorithms and IT techniques, including application software packages to describe environmental experiments and analysis of typical data in socio-economic activities based on science and natural sciences.	Demonstrates the ability to operate basic optical equipment (stereo microscope, transmission light microscope, measuring and image/data analysis apparatus) used in biological research. Uses a computer coupled to an image analysis device to study and observe biological objects.	[SU8] observation of student's independent or team work
[OŚL3_U07] Uses basic laboratory techniques, conducts field research and performs qualitative and quantitative analyses and draws conclusions on this basis for practical purposes.	Demonstrates the ability to identify selected organisms, tissues and cells. Follows basic preparation procedures when identifying research material including plants, animals, tissues and cells.	[SU1] oral statement/conversation/ discussion [SU8] observation of student's independent or team work
[OŚL3_K04] Demonstrates responsibility for the safety of her/ his own and others' work and for the workplace, and correctly follows the rules of conduct in emergencies.	He is responsible for the safety of his own work and that of others and the workplace and knows how to deal with emergencies.	[SK1] oral statement/conversation/ discussion [SK8] observation of student's independent or team work
[OŚL3_W13] Defines the basic principles of occupational safety, ergonomics and hygiene.	Understands the basic principles related to health and safety in a biological laboratory	[SW1] oral statement/ conversation/discussion
[OŚL3_W01] Discusses the basic concepts of mathematics, physics, chemistry and biology. Describes physical, chemical and biological phenomena occurring in nature as well as geological, geomorphological and climatic conditions of the functioning of nature.	Knows and discusses basic concepts of biology. Demonstrates structure and functional relationships at cellular, tissue, organ and organismal levels.	[SW1] oral statement/ conversation/discussion

Subject contents

Levels of biological organization (molecular, organism, population and species). Diversity of modern groups within Procaryota and Eucaryota - systematic review and biological characteristics, metabolism, reactivity, coordination and reproduction of organisms. Main issues related to inheritance and evolution, including evolutionary processes of species formation and extinction. Biodiversity of Polish flora and fauna, with particular emphasis on endangered, protected and bioindicating species.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
attendance at lectures	60.0%	100.0%

Recommended reading

Basic literature

- Błaszak C. [red.] 2009 - 2020. Zoologia, t.1-3. PWN, Warszawa.
- Boczek J., Brzeski M., Kropczyńska-Linkiewicz D. 2000. Wybrane działy zoologii. Podręcznik dla studiujących ochronę środowiska. PWN, Warszawa.
- Campbell N.A., Reece J.B., Urry L.A., Cain M.L., Wasserman S.A., Minorsky P.V., Jackson R.B. 2014. Biologia. Rebis, Poznań.
- Gorczyński T. [red.]. 1986. Ćwiczenia z botaniki. PWN, Warszawa.
- Grodziński Z. 1979. Zoologia Strunowce i Przedstrunowce. PWN, Warszawa.
- Jura C. Bezkręgowce. 2007. PWN, Warszawa.
- Moraczewski J., Riedel W., Sołtyńska M., Umiński T. 1974. Ćwiczenia z zoologii bezkręgowców, PWN,Warszawa.
- Szweykowska A., Szweykowski J. 2016. Botanika. PWN, Warszawa.

Supplementary literature

- Kunicki-Goldfinger W. J. H. 1980. Podstawy biologii od bakterii do człowieka. PWN, Warszawa.
- Encyklopedia biologiczna. T.I-XIII. OPRES, Kraków, 2000.
- Gajewski W. 1992. Genetyka. PWRiL, Warszawa.
- Głowaciński Z. [red.] 2001. Polska czerwona księga zwierząt. Kręgowce. PWRiL, Warszawa.
- Jasiński A. 1984. Zootomia kręgowców. PWN, Warszawa.
- Malinowski E.1983. Anatomia roślin. PWN, Warszawa.
- Podbielkowski Z. 1990. Rozmnażanie się roślin. WSiP, Warszawa.
- Rajski A. 1994. Zoologia. T. I i II. PWN, Warszawa.
- Villee C.A., Solomon E.P., Berg L.R., Martin D.W. 2011. Biologia. Multico, Warszawa.
- Zawistowski S. 1990. Zarys histologii. PZWL, Warszawa.

	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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