

Course title Hydrobiologia/Hydrobiology		ECTS code 7.2.0587	
Name of unit administrating study			
Faculty of Chemistry			
Studies			
Field of study	Type	Form	
Environmental Protection	Bachelor	Full-time studies	
Teaching staff Dr hab. Waldemar Surosz, prof. UG			
Forms of classes, the realization and number of hours		ECTS credits	
A. Forms of classes, in accordance with the UG Rector's regulations lecture, audytorium classes, outdoor activity		classes - 45 h tutorial classes - 10 h student's own work - 45 h TOTAL: 100 h - 4 ECTS	
B. The realization of activities In-class learning, outdoor activity			
C. Number of hours lecture 30 h, audytorium classes 15 h			
The academic cycle 2019/2020 summer semester			
Type of course obligatory		Language of instruction Polish	
Teaching methods Lectures including multimodal presentations Work in groups		Form and method of assessment and basic criteria for evaluation or examination requirements	
		A. Final evaluation, in accordance with the UG study regulations Course completion (with a grade), exam	
		B. Assessment methods Test, written exam with open questions (tasks), final performance task - project or presentation	
		D. The basic criteria for evaluation Acquiring knowledge in the field of ecological specifics of aquatic environment and related biology and ecology of the organisms inhabiting such environment	
Required courses and introductory requirements none			
Aims of education Understanding the ecological specificity of the aquatic environment and the biological adaptations of aquatic organisms. The purpose of the exercises is to learn about the functioning of inland and marine ecosystems with particular emphasis on the biology and ecology of aquatic flora and fauna organisms.			
Course contents A. The lecture content: A.1. Aquatic habitat specificity (physical, chemical, edaphic, biological parameters). A.2. Biology of aquatic organisms (buoyancy, movement, osmoregulation and ionoregulation, respiration, feeding, reproduction). A.3. Overview and characteristics of ecological formations: plankton, nekton, pleuston, neuston, benthos. A.4. Ecobiological characteristics of the aquatic environment in terms of basic types of reservoirs.			

A.5. Ecological parameters affecting littoral, sublittoral, benthal and pelagic zones.

A.6. Basic data on the productivity of aquatic ecosystems.

A.7. Issues of modern hydrobiology: eutrophication, acidification and saprobization.

B. Exercise/laboratory content:

B.1. Characteristics of plant and animal organisms inhabiting the aquatic environment.

B.2. Detailed recognition of ecological formations, species composition and ecological adaptations.

B.3. Understanding the properties of the aquatic environment that have a major impact on the occurrence and biology of organisms inhabiting there.

Bibliography of literature

A. Literature required to pass the course

A.1. Literature used during classes:

Pliński M., 1992, Hydrobiologia ogólna, wyd. Uniwersytet Gdański, (i wydania późniejsze)

Odum E., 1982, Podstawy ekologii, PWRiL, Warszawa

A.2. Literature for individual studies:

Starmach K., Wróbel., Pasternak K., 1976. Hydrobiologia, Limnologia, PWN, Warszawa

Thurman U., 1982, Zarys oceanologii, Wydawnictwo Morskie, Gdańsk

B. Extracurricular readings

Mikulski J., 1982, Biologia wód śródlądowych, PWN, Warszawa

Pliński M., 2008, Biologia organizmów morskich, Uniwersytet Gdański, Gdańsk

Podbielkowski Z., Tomaszewicz H., 1979, Zarys hydrobotaniki, PWN, Warszawa

Starmach K., 1973, Wody śródlądowe. Zarys hydrobiologii, skrypt UJ, Kraków

Kajak Z., 1998, Hydrobiologia – Limnologia, Wyd. Nauk. PWN, Warszawa

Chojnacki J., 1998, Podstawy ekologii wód, Wyd. Akademii Rolniczej w Szczecinie, Szczecin