Name of the field of study	Biology
Name of the module	Environmental protection
Language	English
Type of module	optional
Level of education	1st degree
Form of study	Full-time
Year of study	III
Semester	6
Number of ECTS points per contact / non-contact	2 (1,32/0,68)
Name of responsible person	Dr hab. Monika Tarkowska-Kukuryk
Department	Department of Hydrobiology and Protection of Ecosystems
Aim of module	Acquaint students with the main threats of abiotic (air, water, soil) and biotic (flora, fauna) components of the natural environment and with ways to counter the negative effects of human activities in the environment.
Educational outcomes	Knowledge:
	W1.The graduate knows and understands the basic concepts of threats and protection of biotic and abiotic elements of the environment
	W2. The graduate knows and understands the relationships between the biosphere and the atmosphere, hydrosphere and lithosphere in natural and anthropogenic ecosystems
	Skills:
	U1.Based on the data provided, the graduate is able to determine threats to the functioning of a selected ecosystem, assess the degree of environmental degradation and propose potential methods of protection.
	Socialcompetences:
	K1. Graduate is able to cooperate in a team when preparing presentations, performing field exercises and participating in discussions
Initial and additional requirements	Completed modules botany, zoology, general ecology
Content of the education module	Basic concepts of the functioning of the natural environment (ecosystem, biocenosis, biotope). Ecological structure of ecosystem (trophic levels, functional processes determining equilibrium). Renewable and non-renewable resources of the natural environment. The impact of human activities on nature. Environmental protection in Poland and in the world - the basic legal acts. European network of protected areas NATURA 2000, CORINE program, ECONET network. System of protected areas in Poland. Environmental protection at landscape scale. The city as an ecological system. Abiotic (climate, topography, soil, water balance) and biotic components (vegetation, fauna) of the city. The concept of restoration. Reclamation of degraded areas. Assessment and forecasting the state of the environment

	(State Environmental Monitoring).
List of basic and supplementary literature	1.Pullin A. S. 2002. Conservation biology. Cambridge University Press. 2.Van Alden J., Aronson J. 2006. Restoration ecology. The new frontier. Blackwell Publishing. 3. www.mos.gov.pl
Planned forms /activities/ teaching methods	Lecture, discussion, field classes, auditorium classes
Methods of verification and documentation of achieved learning outcomes	Verification methods: W1, W2 - assessment of the written test in the form of open questions, assessment of the written test - single-choice test. U1 – evaluation of presentations, passing field exercises K1 –assessment of the written test; assessment of group work and individual work. Documenting achieved learning outcomes staged work: written test, presentations archived in digital form, report on field exercises final work: written test Criteria for evaluation: Obtaining a percentage of the required knowledge, skills and competences:2,0 – < 51,0% 3,0 – 51-60% 3,5 – 61-70% 4,0 – 71-80% 4,5 – 81-90% 5,0 – 91-100 %
Elements and importance affecting the final grade	Final grade = 50% arithmetic mean of the grades obtained during the exercises (test grade and activity grades - group/individual work, presentation grades) + 50% test grade. These conditions are presented in the first class of the module.
Balance of ECTS points	**Contact** – lectures (15 hrs/0,6 ECTS), – classes (15 hrs/0,6 ECTS), – consultations (3 hrs/0,12 ECTS) Total - 33 hrs/1,32 ECTS **Non-contact** – preparation for classes (4 hrs/0,16 ECTS) – studying literature (5 hrs/0,2 ECTS), – preparation to the test (8 hrs/0,32 ECTS) Total - 17 hrs/0,68 ECTS
Working hours related to activities requiring direct participation of an academic teacher	lectures – 15 hrs; in exercises – 15 hrs; consultations – 3 hrs;
Degree of directional effect	W1 – BI1_W01 W2 – BI1_W07 U1 – BI1_U13 K1 – BI1_K03