Learning outcomes for the field and their relationship to the learning outcomes for the areas of study

Faculty offering the field of study:	**Faculty of Biology and Environmental Protection**
Field of study: *(title of the field of study must correspond to the content of the curriculum, in particular to the expected learning outcomes)*	**environmental protection**
Level of study: *(first cycle, second cycle, long cycle)*	**second cycle programme**
Degree profile: *(general academic, practical)*	**general academic**
The field of study within the area (areas) of study: (including justification)*	**Natural Sciences (P)**

(1) Symbol	**(2) Learning outcomes for the field** **Upon completion of the general academic profile second cycle programme in environmental protection the graduate achieves the learning outcomes specified below.**	**(3) Reference to the learning outcomes in the area of study (symbols) life sciences P2A**
	KNOWLEDGE	
K_W01	The graduate identifies and explains relations among elements of the environment.	P2A_W01
K_W02	The graduate explains the functioning of ecological systems and indicates the consequences of human interference.	P2A_W01
K_W03	The graduate explains selected ecological processes on the molecular level.	P2A_W01 P2A_W03
K_W04	The graduate predicts the consequences of human interference for the natural environment and discusses ways of counteracting environment degradation.	P2A_W02 P2A_W04
K_W05	The graduate explains the meaning of knowledge of toxicology in the environment protection	P2A_W04
K_W06	The graduate describes examples of biotechnology application for the environment protection.	P2A_W01 P2A_W04
K_W07	The graduate describes the rules of spatial planning and use.	P2A_W04
K_W08	The graduate explains the rules of research planning and describes research methods within the area of study that is the focused of the Master's thesis.	P2A_W02 P2A_W07
K_W09	The graduate enumerates possibilities of obtaining research and application funds and explains the settlement of accounts rules.	P2A_W08
K_W10	The graduate defines premises of the environment protection policy in Poland and the EU.	P2A_W04
K_W11	The graduate describes statistical methods and modelling principles applied in environmental studies.	P2A_W03 P2A_W06
K_W12	The graduate enumerates and characterises selected specialist computer programmes applied in the environment protection.	P2A_W06
K_W13	The graduate knows basic terms in a foreign language (English) in the field of environment protection.	P2A_W05
K_W14	The graduate describes the rules of preparing and writing research papers.	P2A_W08

K_W15	The graduate enumerates and discusses most important specialist literature in the field that is the focus of the Master's thesis.	P2A_W05
K_W16	The graduate enumerates and explains health and safety rules for laboratory or field work.	P2A_W09
K_W17	The graduate describes general rules of establishing and developing business activity in which knowledge of the environment protection is applied.	P2A_W11
	SKILLS	
K_U01	The graduate selects adequate methodology to solve research or practical problems.	P2A_U01
K_U02	The graduate takes advantage of fundamental knowledge to draw conclusions relying on the results of research carried out.	P2A_U06 P2A_U07
K_U03	The graduate analyses evolutionary and physiological contexts of natural phenomena.	P2A_U06
K_U04	The graduate assesses the effects of human interference on the environment and suggests relevant solutions preventing negative effects or eliminating them.	P2A_U06 P2A_U07
K_U05	The graduate identifies toxicological hazards in natural and anthropogenic environment.	P2A_U04
K_U06	The graduate assesses the environmental effects in spatial management planning.	P2A_U07
K_U07	The graduate applies biotechnological methods to improve the quality of the environment.	P2A_U01
K_U08	The graduate prepares simple reports and formulates guidelines for expet opinions on the basis of the collected data.	P2A_U04
K_U09	The graduate selects an appropriate way to obtain funds to implement research and application projects as well as prepares application forms, periodical and final reports.	P2A_U04
K_U10	The graduate prepares simple research papers in Polish and short scientific reports in a foreign language following general standards of writing research papers.	P2A_U09
K_U11	The graduate presents in public the results of individual and team work.	P2A_U08 P2A_U10
K_U12	The graduate is able to use specialist terminology in the field of environment protection in Polish and English.	P2A_U12
K_U13	The graduate performs and describes simple research tasks individually as well as in a team.	P2A_U04
K_U14	The graduate combines information from various sources in order to verify the existing opinions and hypotheses.	P2A_U02 P2A_U03 P2A_U07
K_U15	The graduate applies environmental models to interpret changes occurring in animate and inanimate nature.	P2A_U05
K_U16	The graduate applies modern information technologies (e.g. GIS)	P2A_U05
K_U17	The graduate plans his/her professional career and applies methods aimed at reaching assumed objectives.	P2A_U11
K_U18	The graduate arranges his/her workstation in compliance with health and safety rules, and principles of ergonomics.	P2A_U04
K_U19	The graduate prepares documentation necessary for establishing a business providing expert, monitoring, consulting, opinion-making, or planning services.	P2A_U11
K_U20	The graduate provides research-based justification for the selection of his/her Master's thesis topic with a view to professional and research career.	P2A_U07 P2A_U11

SOCIAL COMPETENCES		
K_K01	The graduate understands the need for lifelong learning and improving professional competences and skills.	P2A_K01 P2A_K07
K_K02	The graduate is willing to cooperate and work in a team and assume various roles.	P2A_K02
K_K03	The graduate is able to adequately specify his/her priorities in order to accomplish a task set by himself/herself or by other persons.	P2A_K03
K_K04	The graduate puts attention to details while identifying and solving professional problems.	P2A_K04
K_K05	The graduate is aware of the need to get systematically acquainted with scientific journals on environment protection.	P2A_K05
K_K06	The graduate shows responsibility when determining hazards resulting from the application of various research techniques and creation of safe working conditions.	P2A_K06
K_K07	The graduate is willing to update his/her knowledge of nature and recognises its practical applications.	P2A_K07
K_K08	The graduate is aware of problems connected with working in his/her profession and displays the ability to act in an entrepreneurial manner	P2A_K08
K_K09	The graduate is willing to use mathematical and IT tools in order to solve professional and research problems.	P2A_K04
K_K10	The graduate expresses his/her critical attitude towards plagiarism.	P2A_K01 P2A_K05
K_K11	The graduate understands the need to search for new solutions in modern technologies.	P2A_K04

This learning outcomes was adopted by the Board of Faculty of Biology and Environmental Protection on 5.12.2014 r.

(Dean's signature)