**Learning outcomes for the field of studies
Environmental Protection**

1. **Position of the field in the area of education:** the course belongs to the area of education within the scope of agriculture, forestry and veterinary medicine, and to the natural sciences.
2. **Profile of education:** general academic.
3. **Level and duration of studies:** 2nd cycle of studies (3 semesters).
4. **The graduate:** has broader knowledge, relative to the first-cycle studies, in the field of the natural sciences and sciences on the natural environment, as well as technical, agricultural and forestry sciences, now including spatial planning and methodology of research on the environment, and demonstrates proficiency in the chosen field of study. The graduate has sufficient knowledge and skills to solve, by himself, problems in the area of environmental protection and management in a local, regional, national and internationals context – also in non-standard situations – and is able formulate opinions based on incomplete or limited sets of information, adhering to the legal, economic and ethical rules. The graduate can communicate with specialists and non-specialists on matters related to the protection of nature, and is able to organize teamwork and head a team. The graduate has skills which enable them to work in research institutes, institutions of integrated management and protection of the environment, in industry, agriculture, state administration and local government units. The graduate has instilled habits of continuous self-education and professional development and is prepared to undertake research challenges as well as to enroll in third-cycle (doctoral) studies.
5. **Key to codes:**

K  -  learning outcomes of the field of study Environmental Protection

R2A - learning outcomes in the scope of agriculture, forestry and veterinary medicine for second-cycle studies,

P2A - learning outcomes in the scope of the natural sciences for second-cycle studies

InzA - learning outcomes leading to the acquisition of engineering competences for the second-cycle studies

W - knowledge

U - skills

K after the underscore - social competences

01, 02, 03 and subsequent - learning outcome number

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| Learning outcome code of the field of study  | Learning outcomes for the field of study: **environmenal protection** – on graduation from second-cycle studies, the graduate:  | Symbol learning outcome code in the area of education: agriculture, forestry and veterinary medicine, and in the natural sciences, engineering competences  |
| **knowledge** |
| K2A\_W01 | has broader knowledge in the field of biology and chemistry concerning the natural environment | R2A\_W01P2A\_W01 |
| K2A\_W02 | has advanced knowledge in economics, law and social science pertaining to environment protection | R2A\_W02P2A\_W08InzA\_W04 |
| K2A\_W03 | has deeper knowledge about the biosphere, chemical and physical processes in the biosphere, basic technologies of environmental planning | R2A\_W03P2A\_W02P2A\_W03P2A\_W04InzA\_W03 |
| K2A\_W04 | has deeper knowledge on the principles of planning research, using research techniques and tools used to  study live organisms in the environment | R2A\_WO4P2A\_W07 |
| K2A\_W05 | demonstrates the knowledge of advanced methods for determination and evaluation of environmental contamination. | R2A\_W05 |
| K2A\_W06 | has broader knowledge about the role and importance of the natural environment and sustained use of biological diversity as well as environmental threats | R2A W06P2A\_W01P2A\_W03 |
| K2A\_W07 | has broader knowledge on the current state and complex actions of the factors which determine the functioning and development of rural areas | R2A\_W07 |
| K2A\_W08 | knows and understands basic notions and rules underlying industrial property rights and intellectual property rights, and is aware of the need to manage intellectual property resources; the student is able to use patent information resources | R2A\_W08P2A\_W10 |
| K2A\_W09 | knows the general rules of starting and developing an own business enterprise concerned with environment protection | R2A\_W09P2A\_W10InzA\_W04 |
| K2A\_W10 | knows statistical methods and specialist IT tools | P2A\_W06 |
| K2A\_W11 | has knowledge of problems in environmental protection within the natural and agricultural sciences, currently discussed in literature | P2A\_W05 |
| K2A\_W12 | knows the foundations of workplace safety and ergonomics | P2A\_W09 |
| K2A\_W13 | has deeper knowledge about the functioning of live organisms on different levels of complexity, about inanimate nature and about technical engineering problems in the scope of environment protection | R2A\_W04P2A\_W03 P2A\_W04 |
| K2A\_W14 | shows the knowledge of advanced methods, techniques, technologies, tools and materials which enable people to use and shape the nature’s potential for the sake of improvement of man’s quality of life | R2A\_W05InzA\_W01InzA\_W02InzA\_W05 |
| K2A\_W15 | Identifies and evaluates natural and cultural landscape assets | R2A\_W07 |
| K2A\_W16 | shows the knowledge of methods applied to prevent and revert unfavorable transformations of aquatic environment | R2A\_W03 |
| **skills** |
| K2A\_U01 | has an ability to search for, understand, analyze and use creatively the necessary information from different sources and in different forms, suitable for environmental protection | R2A\_U01P2A\_U01  |
| K2A\_U02 | has an ability to communicate precisely with different partners, in the verbal, written and graphic forms | R2A\_U02P2A\_U08 |
| K2A\_U03 | understands and uses adequate IT technologies for acquisition and processing of information in the field of agricultural and forestry production | R2A\_U03P2A\_U03P2A\_U05InzA\_U01 |
| K2A\_U04 | can plan, execute, analyze and assess the performance of tasks in the scope of environmental protection | R2A\_U04P2A\_U04P2A\_U06P2A\_U07InzA\_U04InzA\_U06 |
| K2A\_U05 | is able to analyze, on one’s own and comprehensively, problems affecting the quality of the natural environment, and shows the knowledge of applications of specialist techniques and their optimization | R2A\_U05P2A\_U01InzA\_U08 |
| K2A\_U06 | has a skill to select and modify typical actions, including techniques and technologies applied in the field of environmental protection | R2A\_U06InzA\_U05InzA\_U02InzA\_U07 |
| K2A\_U07 | evaluates pros and cons of undertaken actions, including the aspect of how original they are in solving the encountered environmental protection problems | R2A\_U07P2A\_U03InzA\_U03 |
| K2A\_U08 | has a better ability to prepare written presentations in Polish and in a foreign language on environmental protection issues | R2A\_U08P2A\_U09 |
| K2A\_U09 | has a better ability to oral pronouncement in Polish and in a foreign language on environmental protection issues | R2A\_U09P2A\_U10 |
| K2A\_U10 | has linguistic skills in the scope of environmental protection | R2A\_U10P2A\_U02P2A\_U12 |
| K2A\_U11 | has very good skills in using research literature concerning the environmental protection in the context of natural, exact and agricultural sciences | R2A\_U08R2A\_U09P2A\_U02 |
| K2A\_U12 | Can be independent in planning own scientific or professional career | P2A\_U11 |
| K2A\_U15 | Is able to make an assessment of the environment, its utilitarian and natural value and the degree of degradation | R2A\_U01P2A\_U07 |
| **social competences** |
| K2A\_K01 | understands the need of life-long learning; can inspire others and organize their learning process | R2A\_K01P2A\_K01 |
| K2A\_K02 | can collaborate with others in a group and assume in it different roles | R2A\_K02P2A\_K02 |
| K2A\_K03 | can set correct priorities in the environmental protection which will serve the execution of a task set for oneself and for others | R2A\_K03P2A\_K03 |
| K2A\_K04 | correctly identifies and resolves dilemmas connected with the protection and conservation of the natural environment | R2A\_K04P2A\_K04 |
| K2A\_K05 | is aware of the role of his/her own social, professional and ethical responsibility for the condition of the natural environment | R2A\_K05InzA\_K01 |
| K2A\_K06 | has knowledge of actions which can minimize the risk and predict the consequences of actions taken in the realm of nature conservation | R2A\_K06P2A\_K04 |
| K2A\_K07 | is aware of the need to learn and improve professionally in the scope of nature protection | R2A\_K07P2A\_K05P2A\_K07 |
| K2A\_K08 | can think and act like an entrepreneur | R2A\_K08InzA\_K02P2A\_K08 |
| K2A\_K09 | acts responsibly when making an assessment of the threats due to applied research techniques, and creating a safe work place | P2A\_K06 |
| K2A\_K10 | correctly identifies the state of the natural environment and resolves dilemmas connected with its contamination, threats and restoration techniques | R2A\_K05P2A\_K04 |

**GENERAL REQUIREMENTS:**

To achieve qualifications from the second-cycle studies, all the above learning outcomes are required.

**STRUCTURE OF STUDIES:**

Second-cycle studies, 3 semesters, number of ECTS credits – 90.

**PRACTICAL TRAINING:**

The practical training is dedicated to writing a Master thesis, it takes 4 weeks and is scheduled in agreement with the thesis’ supervisor. The outcome of the practical training placement, aside from gaining specialist skills, consists of data and references need for writing the dissertation.