Appendix No. 2
to Resolution No. 3494
of the Senate of the University of Bialystok
z 19 February 2025

LEARNING OUTCOMES

DOCTORAL SCHOOL AT THE UNIVERSITY OF BIALYSTOK

1. Name of institution providing education: **UNIVERSITY OF BIALYSTOK**
2. The school provides education in the following field/fields of science and scientific discipline/disciplines the learning outcomes refer to:
   a) **field of humanities sciences,** disciplines: ***philosophy*, *linguistics*, *literary studies*, *history***
   b) **field of social sciences**, disciplines: ***economics and finance*, *pedagogy, legal sciences, sociological sciences, international relations***
   c) **field of exact and natural sciences,** disciplines: ***biological sciences*, *chemical sciences*, *mathematics*, *physical sciences***
3. Name of doctoral school: **Doctoral School at the University of Bialystok**

Symbol in the description of PRK second degree characteristics*	DESCRIPTION OF PRK SECOND DEGREE CHARACTERISTICS	Learning outcome symbol**	DESCRIPTION OF ASSUMED LEARNING OUTCOMES after graduating from the doctoral school, graduates:
KNOWLEDGE, graduates know and understand:			
P8S_WG	To the extent that allows for the revision of existing paradigms – global achievements, including theoretical background as well as general and selected specific issues – relevant to a particular discipline of science or art	**SD_WG01**	theoretical background, as well as general and detailed issues, enabling the revision of existing paradigms in a given field of science
		SD_WG02	current scientific achievements within a given scientific discipline based on professional literature
	Major general development trends in disciplines of science or art in which education is provided	**SD_WG03**	contemporary development trends and the most recent achievements of scientific discipline in which research is conducted
	Research methodology	**SD_WG04**	principles of methodology, as well as research methods and techniques applied in a given scientific discipline
	Rules for dissemination of research results including open access	**SD_WG05**	mechanism for the dissemination of research findings, including open access and its importance for scientist's work

P8S_WK	Fundamental dilemmas of contemporary world	**SD_WK01**	the complexity of social systems and the problems of the contemporary world
	Economic, legal, ethical and other significant conditions of scientific activity	**SD_WK02**	the functioning of the scientific activity financing system
		SD_WK03	legal conditions of scientific activity
		SD_WK04	ethical conditions of scientific activity
	Basic rules for the transfer of knowledge to the economic and social areas, as well as the commercialization of research findings and relevant know-how	**SD_WK05**	rules for the transfer of knowledge to the economic and social areas, as well as the commercialization of research findings

SKILLS, graduates are able to:			
P8S_UW	Use knowledge from various fields of science or art to creatively identify, formulate, and solve complex research problems, or to carry out tasks, in particular: - define the purpose and subject of scientific research and formulate a research hypothesis - develop and creatively apply research methods, techniques, and tools - draw conclusions based on research findings	**SD_UW01**	knowing the current state of knowledge, define the purpose and subject of scientific research, formulate a research hypothesis, and select adequate methods and models to test it
		SD_UW02	if necessary, design their own research techniques and tools, or creatively adapt existing methods to achieve the set objectives
		SD_UW03	draw conclusions based on the confrontation of well-known literature with the results of their own research
	Carry out critical analyses and assessments of research findings, expert activities, and other creative works, as well as their contribution to the process of knowledge development	**SD_UW04**	carry out critical analyses and assessments of research findings and expert activities, and evaluate their contribution to the development of a given scientific discipline
	Transfer the results of scientific activity to the economic and social spheres	**SD_UW05**	identify the application potential of research results and explore possibilities for their transfer to the economic or social sphere
P8S_UK	Take part in communication on specialist subjects to the extent enabling active participation in international scientific community	**SD_UK01**	communicate efficiently using appropriate terminology, as well as prepare and present the results of their own research, including in a foreign language
	Disseminate the results of scientific activity, also in a popular form	**SD_UK02**	disseminate the results of scientific research in the form of scientific and popular science publications and public presentations
	Initiate a debate Take part in the scientific discourse	**SD_UK03**	take part and initiate the scientific discourse using soft skills, formulate conclusions, and make coherent summaries

	Speak a foreign language at the B2 level of the Common European Framework of Reference for Languages to the extent enabling participation in international scientific and professional community	**SD_UK04**	speak a foreign language at the B2 level to the extent that allows conducting research based on world literature and establishing contacts with the international scientific and professional community
P8S_UO	Plan and carry out individual and team research projects or creative undertakings, within the international community as well	**SD_UO01**	design a research project and draft an application for its funding
		SD_UO02	undertake scientific cooperation
P8S_UU	Plan and act for the purpose of their own personal development, and inspire and organize development of others	**SD_UU01**	plan a self-development process individually, using soft skills to improve the efficiency of the learning process
		SD_UU02	using acquired knowledge, inspire and organize the development of others, including through modern teaching methods and techniques
	Plan classes or a set of classes and conduct them using modern methods and tools	**SD_UU03**	plan and conduct didactic classes in a given scientific discipline using appropriate methods and techniques

SOCIAL COMPETENCES, graduates are ready to:			
P8S_KK	Critically evaluate achievements within a given discipline of science or art	**SD_KK01**	critically analyze sources of scientific information and research results in given scientific discipline
	Critically evaluate their own contribution to the development of a given discipline of science or art	**SD_KK02**	self-criticize in scientific and didactic work
	Recognize the importance of knowledge in solving cognitive and practical problems	**SD_KK03**	recognize the importance of knowledge in the solution of cognitive and practical problems
P8S_KO	Fulfil the social obligations of researchers and creators	**SD_KO01**	fulfilling the duties of a researcher and teacher, including promoting scientific achievements through their popularization in professional and social contacts
	Initiate activities for the benefit of the public interest	**SD_KO02**	initiate activities for the benefit of the public interest
	Think and act resourcefully	**SD_KO03**	think and act resourcefully
P8S_KR	Support and develop the ethos of scientific and creative communities, including: - conducting independent scientific activity - respecting the principle of public ownership of scientific activity results, including the principles of intellectual property protection	**SD_KR01**	maintain objectivity and respect for the principles of intellectual property protection in scientific work

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Explanation of the symbols:

***P8S_WG** – an example symbol in the description of the second degree characteristics of PRK

P8 – PRK level 8 – doctoral schools **S** – characteristic typical for qualifications obtained in a higher education
W – knowledge *(descriptive category)*
G – *depth and range*
K – *context*
U – skills *(descriptive category)*
W – *application of knowledge*
K – *communication*
O – *work organization*
U – *learning*
K – social competences *(descriptive category)*
K – *critical evaluation*
O - *responsibility*
R – *professional role*

****SD_WG01** – an example symbol of a learning outcome

SD *learning outcomes at doctoral school*
W – knowledge *(descriptive category)*
G – *depth and range*
K – *context*
U – skills *(descriptive category)*
W – *application of knowledge*
K – *communication*
O – *work organization*
U – *learning*
K – social competences *(descriptive category)*
K – *critical evaluation*
O - *responsibility*
R – *professional role*
01, 02, 03 and more – number of learning outcome

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(*stamp and signature of the Director of Doctoral School)*