

**Name of Doctoral school: The DOCTORAL SCHOOL of QUANTITATIVE and NATURAL SCIENCES**

**Field: of exact and natural sciences, scientific dyscypline: mathematics, biological sciences, chemical sciences, physical sciences, sciences connected with the Earth and the Environment**

**Field: of agriculture sciences, scientific dyscypline: agriculture and horticulture**

**Standard of Polish Evaluation Scheme - eight**

Symbol of effects	Effects of learning	Reference to universal characteristics PRK <sup>1</sup>	Reference to the second degree characteristic PRK for standard 8 <sup>2</sup>
1	2	3	4
	<b>KNOWLEGE: GRADUATE KNOWS AND UNDERSTANDS</b>	<b>Code of description component</b>	<b>Code of description component</b>
K_W01	world achievements in a particular area in the field in which the research project is realized in the degree enabling revision of already existing paradigms	P8U_W	P8S_WG
K_W02	general and selected detailed problems regarding the scientific area from quantitative and natural sciences or agriculture science branch in which the research project is realised	P8U_W	P8S_WG
K_W03	practical implications resulting from the knowlege proper for a given area in the scientific branch in which the research project is carried on	P8U_W	P8S_WG
K_W04	issues of contemporary science resulting from the interdisciplinary character of problems related to quantitative and natural sciences	P8U_W	P8S_WG
K_W05	main scientific trends in given areas from quantitative and natural sciences as well as those from agriculture science fields in which the research project is realized	P8U_W	P8S_WG

<sup>1</sup> Refers to the proper level of PRK 6-8 according to the annex of the bill of 22 December, 2015 about *Integrated System of Evaluation*

<sup>2</sup> Refers to characteristics of the second degree of learning for the evaluation on levels 6-8 of Polish Standard of Evaluation typical of evaluation obtained within the system of higher education and science after obtaining level 4 evaluation according to the decree of Minister of Science and Higher Education of 14 November, 2018 about the characteristics of second degree learning effects for evaluation on 6-8 levels of Polish Evaluation Standard

K_W06	main developmental trends in scientific areas for quantitative and natural sciences as well as in agriculture science fields essential for the curriculum	P8U_W	P8S_WG
K_W07	issues connected with methodology of carrying out research in a given area of quantitative and natural sciences or agriculture science field	P8U_W	P8U_WG
K_W08	basic problems of contemporary civilization and their reference to given areas in quantitative and natural sciences as well as in agriculture science fields	P8U_W	P8S_WK
K_W09	Economic, legal and ethical conditions of research in the area of quantitative and natural sciences as well as in the agriculture science field	P8U_W	P8S_WK
K_W10	Mechanisms, rules and problems of scientific circulation, dissemination and popularization of research results (also on the basis of free availability) through both traditional channels and those connected with new technologies	P8U_W	P8S_WK
	<b>SKILLS: THE GRADUATE CAN</b>	<b>Code of description component</b>	<b>Code of description component</b>
K_U01	define the aim and subject of research within the areas of quantitative and natural sciences as well as agriculture science fields	P8U_U	P8S_UW
K_U02	formulate a research hypothesis within the area of natural sciences as well as agriculture science fields	P8U_U	P8S_UW
K_U03	develop research methods, techniques and tools as well as apply them in a creative way within the areas of natural sciences as well as agriculture science fields	P8U_U	P8S_UW
K_U04	draw conclusions from the research results	P8U_U	P8S_UW
K_U05	make use of the knowledge from areas of natural sciences or agriculture science fields for creative identification, formulation and innovative solution of complex problems	P8U_U	P8S_UW
K_U06	make use of the knowledge from the areas of natural sciences or agriculture science fields for the task of research character	P8U_U	P8S_UW
K_U07	transfer the research results to the economic and social spheres	P8U_U	P8S_UW
K_U08	disseminate the research results also in popular forms	P8U_U	P8S_UK
K_U09	participate in the scientific discussion, initiate a debate in the given field as well as in a broader social range, express opinions about specialistic subjects	P8U_U	P8S_UK
K_U10	make use of the English language in the way to be able to participate in the international and professional circles at the level not lower than B2	P8U_U	P8S_UK
K_U11	plan and carry out individual and team research or creative venture also in the international circle	P8U_U	P8S_UO

K_U12	plan and act individually as regards the own development as well as inspire and organize development of other people	P8U_U	P8S_UU
K_U13	work out educational circula and realize the using modern methods and tools	P8U_U	P8S_UU
	<b>SOCIAL COMPETENCES: GRADUATE IS PREPARED FOR</b>	<b>Code of description component</b>	<b>Code of description component</b>
K_K01	critical evaluation of achievements in the given scientific area, critical evaluation of the own contribution to the development of this area as well as acknowledgement of importance of knowlege in solution of cognitive and practical issues	P8U_K	P8S_KK
K_K02	execution of social commitments of researchers and creators, particularly in dessemination of research results	P8U_K	P8S_KO
K_K03	thinking and acting in an initiative way directed at public matter	P8U_K	P8S_KO
K_K04	observance of ethical rules and good manners in science, particularly abiding the rule of public proprietorship of research results including the intellectual property principle	P8U_K	P8S_KR