

## Appendix No. 1. Description of the Intended Learning Outcomes at the Doctoral School of the Eugeniusz Piasecki University School of Physical Education in Poznań

**Scientific discipline:** physical culture sciences

**Qualification framework level:** PQF level 8

The description takes into account the universal first-level characteristics for level 8 as defined in the Act of December 22, 2015 on the Integrated Qualifications System (Journal of Laws of 2016, items 64 and 1010), as well as the second-level characteristics defined in the Regulation of the Minister of Science and Higher Education of November 28, 2018 on second-level characteristics of learning outcomes for qualifications at levels 6–8 of the Polish Qualifications Framework.

Symbols of learning outcomes	Description of learning outcomes at the Doctoral School PQF level 8	Reference to the second-level characteristics of learning outcomes for qualifications at PQF level 8
<b>Knowledge</b>		
KSD_W01	Possesses advanced knowledge of conducting scientific research, including the principles of formulating research problems, presenting results, and evaluating and reporting progress.	P8S_WG P8S_WK
KSD_W02	Is familiar with key concepts and terminology used in physical culture sciences and possesses interdisciplinary knowledge enabling the solution of complex research and practical problems.	P8S_WG P8S_WK
KSD_W03	Understands philosophical currents and the principles of professional ethics, as well as their application in science.	P8S_WK
KSD_W04	Is familiar with statistical methods and their application in data analysis.	P8S_WG
KSD_W05	Is familiar with the principles of designing and conducting teaching activities in higher education and understands the principles of teaching professionalism and the stages of professional development.	P8S_WK
KSD_W06	Is familiar with the principles of preparing grant applications, the commercialization of research results, and their application in economic practice.	P8S_WK
<b>Skills</b>		
KSD_U01	Can effectively conduct research in accordance with the individual research plan, report progress, and verify methodological assumptions.	P8S_UW

KSD_U02	Can analyze and interpret key concepts and critically evaluate scientific literature in the fields of medical sciences, health sciences, and physical culture sciences in the context of their application in scientific research.	P8S_UW
KSD_U03	Can independently design a study, select appropriate research methods, and apply the obtained results in social and economic practice.	P8S_UW
KSD_U04	Can conduct scientific communication in English, present research findings in academic forums, and actively participate in discussions, taking into account the principles of professional self-presentation.	P8S_UK
KSD_U05	Can design teaching activities and reflectively analyze their own pedagogical practices.	P8S_UU
KSD_U06	Can manage a research team and collaborate effectively in interdisciplinary teams by integrating various methodological approaches.	P8S_UK, P8S_UO
KSD_U07	Can identify and critically analyze ethical issues in scientific research, and prepare and complete applications for bioethics committee approval in accordance with applicable standards.	P8S_UW
<b>Social competences</b>		
KSD_K01	Demonstrates responsibility for the quality and ethics of conducted research.	P8S_KK
KSD_K02	Promotes values related to physical culture in various social environments.	P8S_KO
KSD_K03	Engages in international scientific discussions.	P8S_KO
KSD_K04	Accepts constructive criticism and uses it to improve their research.	P8S_KK
KSD_K05	Demonstrates responsibility for the implementation of the individual research plan and for the quality of the presented results.	P8S_KK
KSD_K06	Takes responsibility for the development of others and for knowledge transfer, supporting lifelong learning and its impact on social development.	P8S_KK P8S_KR
KSD_K07	Shows commitment to activities promoting science and its role in society.	P8S_KK

### Explanation of abbreviations:

**KSD** – discipline-specific learning outcomes at the Doctoral School

**W** – knowledge category

**U** – skills category

**K** – social competences category

**P8S** – learning outcome characteristics for level 8 (P8) of the Polish Qualifications Framework, typical for qualifications awarded within the

system of higher education and science (S)

**WG** – knowledge category, scope and depth – completeness of cognitive perspective and interrelations

**WK** – knowledge category, context – conditions and consequences

**UW** – skills category, application of knowledge – problems solved and tasks performed

**UK** – skills category, communication – receiving and producing statements, disseminating knowledge in the academic environment and using a foreign language

**UO** – skills category, work organization – planning and teamwork

**UU** – skills category, learning – planning one's own development and the development of others

**KK** – social competences category, evaluation – critical reflection

**KR** – social competences category, professional role – independence and development of professional ethos

**KO** – social competences category, responsibility – fulfilling social obligations and acting in the public interest

**01, 02, 03 and so on** – number of the learning outcome or learning outcome characteristic for level 8 of the Polish Qualifications Framework, applicable to higher education in the field of medical sciences and health sciences, and in the discipline of physical culture sciences.