

Second degree characterization of the learning outcomes for the qualification at level 8 of the Polish Qualifications Framework (PQF)

based on the directive of the Minister of Science and Higher Education of 14th November 2018 (entry 2218)

Knowledge - a person who graduated from doctoral school knows and understands:

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| P8S_WG | global achievements, covering theoretical foundations as well as general and selected specific issues that are relevant to scientific disciplines studied at the doctoral school, to the extent that enables revision of existing paradigms, | SzD_W01 |
| | key developmental trends of disciplines of science in which education at the doctoral school takes place, | SzD_W02 |
| | scientific research methodology in disciplines represented at the doctoral school, | SzD_W03 |
| | principles of disseminating results of scientific activity, also in an open access mode, | SzD_W04 |
| P8S_WK | fundamental dilemmas of the contemporary civilization, | SzD_W05 |
| | economic, legal, ethical and other vital conditions related to scientific activity, | SzD_W06 |
| | basic principles of knowledge transfer to the economic and social sphere as well as those of commercialization of results of scientific activities and know-how related to these results. | SzD_W07 |

Skills - a person who graduated from doctoral school can:

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| P8S_UW | use knowledge from different branches of science to creatively identify, formulate and innovatively solve complex problems or to perform research tasks such as: - define the aim and subject of scientific research, form a research hypothesis, - develop research methods, techniques and tools and use them creatively, - draw conclusions on the basis of research results, | SzD_U01 |
| | critically analyze and assess scientific research results, work of experts and other creative activities together with their contribution into knowledge development, | SzD_U02 |
| | transfer the results of scientific activity to the economic and social sphere, | SzD_U03 |
| P8S_UK | communicate on specialist issues on the level that allows active participation in the international scientific community, | SzD_U04 |
| | share results of scientific activity also in a popular form, | SzD_U05 |
| | initiate debates, | SzD_U06 |
| | take part in scientific discourse, | SzD_U07 |
| | use the English language on at least B2 level, according to the Common European Framework of Reference for Languages (CEFR), to a degree which allows active participation in the international scientific and professional community, | SzD_U08 |
| P8S_UO | plan and implement individual and team research projects, also in the international community, | SzD_U09 |
| P8S_UU | independently plan and act for their self-development as well as inspire and organize development of others, | SzD_U10 |
| | plan classes and groups of classes and conduct them with the use of up-to-date methods and tools. | SzD_U11 |

Social competencies - a person who graduated from the doctoral school is ready to:

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| P8S_KK | critically assess achievements within a given scientific discipline, | SzD_K01 |
| | critically evaluate their own contribution to development of a given scientific discipline, | SzD_K02 |
| | acknowledge the importance of knowledge in solving cognitive and practical problems, | SzD_K03 |
| P8S_KO | fulfilling the social obligations of researchers and creators, | SzD_K04 |
| | initiate actions in the public interests, | SzD_K05 |
| | think and act in an entrepreneurial manner, | SzD_K06 |

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| P8S_KR | maintain and develop the ethos of research and creative communities, including: <ul style="list-style-type: none">- conducting independent scientific activity,- respecting the principle of public ownership of the results of scientific activities, including the principles of intellectual property protection. | SzD_K07 |
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