

Second degree characterization of the learning outcomes 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:

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:

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: <ul style="list-style-type: none"> - 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_U010
	plan classes and groups of classes and conduct them with the use of up-to-date methods and tools.	SzD_U011

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

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
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