

**Description of the assumed learning outcomes
at Doctoral School at the West Pomeranian University of Technology in Szczecin
in English, according to the Polish Qualification Framework at level 8**

Effect code	Learning outcomes in the program of Doctoral School	Reference to learning outcomes at level 8
Knowledge		
ISD_W01	Has extended, theory-based knowledge connected with a represented field and scientific discipline together with detailed advanced level knowledge within the scope of conducted scientific research.	P8S_WG_01
ISD_W02	Has enhanced knowledge on methodology in scientific research, elaboration of publications and presenting research findings.	P8S_WG_02
ISD_W03	Has extended, theory-based knowledge allowing to lead a discussion and revision of existing paradigms in relation to the latest scientific achievements, especially those connected with a represented field and scientific discipline.	P8S_WG_01 P8S_WG_03
ISD_W04	Has extended, theory-based knowledge connected with non-technical aspects of scientific activities, the issues of intellectual property protection and economic, legal and ethical conditions.	P8S_WG_01
ISD_W05	Has knowledge within the scope of commercialisation of scientific research results, including methods of bringing scientific results into practice, existing paths of implementing innovations, criteria and methods of innovative projects assessment and scientific research funding.	P8S_WK_03
ISD_W06	Has knowledge concerning the latest theories, rules, concepts and research methods connected with a represented field and discipline and advanced knowledge allowing to create new theories, research methodologies and concepts within the scope of a represented field and discipline.	P8S_WK_02
ISD_W07	Has knowledge allowing to understand advanced relations within the scope of a represented field and discipline and taking into account interactions and synergies with other fields and disciplines, as well as to conduct interdisciplinary research activities.	P8S_WK_01
ISD_W08	Knows and understands fundamental dilemmas of modern civilisation, also in relation to the latest scientific achievements within the scope of a represented field or discipline.	PS8_WK_01

Skills		
ISD_U01	<p>Is able to state research problems within the scope of a represented field and discipline through:</p> <ul style="list-style-type: none"> – defining the goal and the object of research; – formulating research hypothesis, analytic, synthetic and evaluative judgements on proposed solutions in relation to existing state of the art; – suggesting methods, techniques and research tools aimed to solve research problem. 	<p>P8S_UW_01 P8S_UW_02</p>
ISD_U02	<p>Is able to use in practice and improve methods, techniques and research tools within the scope of a represented field and discipline and use them creatively in order to obtain research results and to evolve them.</p>	<p>P8S_UW_03 P8S_UK_02 P8S_UU_01 P8S_UU_02</p>
ISD_U03	<p>Is able to record the results of conducted scientific activities in a form of scientific studies aimed to be disseminated to different types of audience, especially to international research community.</p>	<p>P8S_UW_03 P8S_UO P8S_UU_02</p>
ISD_U04	<p>Is able to communicate and present the obtained results, especially to international research community, initiate a debate and lead a discussion connected with presenting scientific approaches and results within the scope of a represented field and discipline.</p>	<p>P8S_UK_01 P8S_UK_02 P8S_UK_03</p>
ISD_U05	<p>Is able to develop scientific studies based on the obtained results in a form of publication or presentation in English and is able to operate in a research team.</p>	<p>P8S_UK_04 P8S_UK_05 P8S_UO_01</p>
ISD_U06	<p>Is able to deeper professional and personal competences, especially within the scope of obtaining and analysing the latest achievements connected with a represented scientific field and discipline.</p>	<p>P8S_UU_01</p>
Social competences		
ISD_K01	<p>Understands the need and is ready for a critical analysis of the obtained scientific achievements within the scope of a represented field and discipline.</p>	<p>P8S_KK_01 P8S_KK_03</p>
ISD_K02	<p>Understands the need and is ready for a critical analysis of his or her scientific contribution to a represented field and discipline development.</p>	<p>P8S_KK_02</p>
ISD_K03	<p>Understands the duty to fulfil social, scientific and creative obligations and is aware of initiating actions for public benefit.</p>	<p>P8S_KO_01 P8S_KO_02</p>
ISD_K04	<p>Understands the duty of creative search for answers to civilization challenges, especially to social, scientific and creative obligations to elaborate in a scientific way any new phenomena and problems within the scope of a represented field and discipline.</p>	<p>P8S_KO_02</p>
ISD_K05	<p>Understands the need to comply with ethical and legal norms in research activities, especially with regard to independence in conducting research and respecting the rule of public ownership of research findings considering copyrights.</p>	<p>P8S_KR_01 P8S_KR_02 P8S_KR_03</p>