

**Doctoral School
of Wrocław University of Environmental and Life Sciences**

1. The Doctoral School at the University of Environmental and Life Sciences in Wrocław provides education in the following fields and disciplines:

- 1) in Natural Sciences, in the discipline of Biological Sciences;
- 2) in Engineering and Technology, in the following disciplines:
 - a) Civil Engineering and Transport,
 - b) Environmental Engineering, Mining and Energy;
- 3) in Agricultural Sciences, in the following disciplines:
 - a) Agriculture and Horticulture,
 - b) Nutrition and Food Technology,
 - c) Veterinary Science,
 - d) Animal Science and Fisheries;
- 4) in Social Sciences, in the discipline of Socio-Economic Geography and Land Management.

2. The main educational goals, including competences acquired by the graduate:

The main goal of education at the Doctoral School of Wrocław University of Environmental and Life Sciences is the acquisition by graduates of competences connected with formulating new, previously unknown scientific problems and solving them in an original way based on modern research tools, using analytical methods and techniques at the highest level. The Doctoral School will enable the graduates to acquire state-of-the-art knowledge in the thematic field of the doctoral dissertation, in the relevant discipline within the exact and natural sciences, agricultural sciences, or engineering and technical sciences, along with an interdisciplinary understanding of functioning in modern society. The preparation of a doctoral dissertation in accordance with the guidelines set by the Doctoral School will enable wide dissemination of the research results in the academic environment and beyond, as well as the transfer of knowledge to the economy. This will help the Doctoral School graduates to enter the international world of science and improve their position in the dynamic market of new technologies connected with a more innovative and competitive economy.

3. Identification of education modules, including the intended learning outcomes and reference to the characteristics of the 8th level of the Polish Qualifications Framework

Learning outcomes at the Doctoral School of Wrocław University of Environmental and Life Sciences		
Code	Competences acquired by a graduate of the Doctoral School of Wrocław University of Environmental and Life Sciences	reference to the characteristics of the 8th level of the Polish Qualifications Framework
Knowledge		
SDUPWr_W 01	The graduate understands complex natural, social and economic phenomena and processes as well as multiple factors influencing them	P8S_WK, P8S_WG
SDUPWr_W 02	The graduate has in-depth knowledge of the available scientific tools, including the preparation and review of scientific papers	P8S_WG, P8S_WO
SDUPWr_W 03	The graduate has in-depth knowledge of selected disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences	P8S_WG
SDUPWr_W 04	The graduate has in-depth statistical and mathematical knowledge as well as knowledge of selected disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences, enabling the graduate to explain, model and forecast processes connected with a given scientific discipline	P8S_WG
SDUPWr_W 05	The graduate has in-depth knowledge of issues that are currently discussed in the academic literature in selected disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences	P8S_WK, P8S_WG
SDUPWr_W 06	The graduate has in-depth knowledge covering the principles of planning and conducting research using advanced techniques and research tools in selected disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences. The graduate has extended knowledge of scientific databases, with particular emphasis on natural and social sciences	P8S_WZ
SDUPWr_W 07	The graduate knows the principles of occupational health and safety, in particular with reference to field tests and other tests that pose a health risk (laboratories)	P8S_WK
SDUPWr_W 08	The graduate knows the principles of creating and developing forms of individual entrepreneurship and the practical possibilities of using scientific research in selected disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences	P8S_WK
SDUPWr_W 09	The graduate knows the legal determinants in selected disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences, as well as general concepts and principles in the field of industrial property protection and copyright	P8S_WK
SDUPWr_W 10	The graduate knows and understands the global scientific and creative achievements and their practical implications in selected disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences	P8S_WK, P8S_WG

SDUPWr_W11	The graduate knows and understands the theoretical foundations, general issues and selected specific issues relevant to a given discipline of exact and natural sciences, agricultural sciences, or engineering and technical sciences to the extent that enables the graduate to revise the existing paradigms	P8S_WK
Skills		
SDUPWr_U01	The graduate is able to use advanced techniques and research tools, appropriate to solve complex scientific problems in selected disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences	P8S_UW
SDUPWr_U02	The graduate is able to efficiently use and critically analyse scientific literature as well as materials from electronic sources	P8S_UW
SDUPWr_U03	The graduate is able to collect materials and information from various sources (also from their own research), develop the collected material and formulate conclusions	P8S_UW
SDUPWr_U04	The graduate is able to creatively develop the existing models and theoretical concepts and to create their own research concepts	P8S_UW, P8S_UU, P8S_UO
SDUPWr_U05	The graduate possesses methodological skills (theoretical and practical) allowing them to plan and conduct independent scientific research and pass expert opinions	P8S_UW, P8S_UU, P8S_UU
SDUPWr_U06	The graduate demonstrates the ability to teach didactic classes and prepare various forms of presentations and talks in Polish and English in the disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences	P8S_UW, P8S_UU
SDUPWr_U07	The graduate demonstrates the ability to write an extensive scientific work (doctoral dissertation) and various shorter scientific studies (articles, polemics, abstracts, reports, reviews), also in English	P8S_UW, P8Z_UO
SDUPWr_U08	The graduate is able to independently manage their own professional or scientific career	P8S_UK, P8S_UO, P8S_UU,
SDUPWr_U09	The graduate is able to comprehensively analyse the causes and course of social and economic processes connected with exact and natural sciences, agricultural sciences, or engineering and technical sciences, formulate their own opinion about them, construct and verify hypotheses, forecast and model complex social and economic processes using advanced research methods and tools	P8S_UW
SDUPWr_U10	The graduate can use knowledge from various fields to creatively identify, formulate and innovatively solve complex problems or do research tasks, in particular: define the purpose and subject of research, formulate a research hypothesis, develop research methods, techniques and tools, creatively apply them and draw conclusions on the basis of research results	P8S_UW, P8S_UO, P8S_UU
SDUPWr_U11	The graduate can use the English language at a level that is sufficient to participate in the international scientific and professional environment	P8S_UK, P83_UO, P8S_UO, P8S_UO, P8S_UU
Social skills		
SDUPWr_K01	The graduate understands the need for lifelong learning and improving qualifications, and encourages others to do so	P8S_KK, P8S_KO, P8S_KR
SDUPWr_K02	The graduate can work in a team and assume various roles in it	P8S_KO, P8Z_KP
SDUPWr_K03	The graduate is able to define and select priorities needed to do a task	P8S_KK

SDUPWr_K04	The graduate correctly identifies and resolves dilemmas connected with the graduate's profession. The graduate is ready to fulfil the social obligations of researchers and creators	P8S_KO, P8S_KR
SDUPWr_K05	The graduate understands the need to systematically follow scientific journals in order to raise general and specialist knowledge in their discipline	P8S_KK, P8S_KR
SDUPWr_K06	The graduate is aware of the responsibility for assessing the risks arising from the research techniques and tools used in research	P8S_KK, P8S_KO
SDUPWr_K07	The graduate feels the need to systematically update knowledge in order to use it in practice	P8S_KK
SDUPWr_K09	The graduate has in-depth knowledge of the research funding system, including the methods of raising funds and settling projects	P8S_KR
SDUPWr_K10	The graduate is ready to conduct independent research and face challenges in the professional and public sphere, taking into account research ethics, responsibility for the consequences and the need to promote best practices	P8S_KO, P8S_KR
SDUPWr_K11	The graduate understands the social role of interfering with a living body	P8S_KR, P8Z_KP

Characteristics of PQF levels for higher education qualifications

P = PQF level (8)

S = a characteristic typical of qualifications obtained in the framework of higher education

W = **knowledge**

G = depth and scope

K = context

U = **skills**

W = use of knowledge

K = communication

O = work organisation

U = learning

K = social competences

K = critical assessment

O = responsibility

R = professional role

Education modules and the expected learning outcomes					
Education modules	ECTS	Reference to the expected learning outcomes	Expected learning outcomes	Method of verification of acquiring the expected learning outcomes by the doctoral student	
Basic	PhD seminar	8	SDUPWr_W01; SDUPWr_W03; SDUPWr_W05; SDUPWr_W10; SDUPWr_W11; SDUPWr_U03; SDUPWr_U07; SDUPWr_U08; SDUPWr_K01; SDUPWr_K02; SDUPWr_K03; SDUPWr_K04; SDUPWr_K07	The student understands the need to systematically follow scientific journals in order to improve general and specialist knowledge in the selected discipline and related disciplines. The student is able to present the latest achievements in the discipline and the results of his/her research in the context of literature on the subject. The student is able to publically present the scope, hypotheses and goals, methodology and results of his/her research. The student understands the fundamental dilemmas of modern civilisation. The student can initiate a scientific debate and participate in scientific discourse. The student can disseminate research results, also in public.	credit
	English for special purposes	6	SDUPWr_W05; SDUPWr_W10; SDUPWr_U02; SDUPWr_U07; SDUPWr_U11; SDUPWr_K05	The student acquires skills needed to prepare, edit and review scientific papers in English. The student is able to freely use English-language literature and conduct a scientific discussion in English. The student is able to present the results of his/her own research as well as problems and findings of other researchers in the discipline in English. The student is sufficiently fluent in English to actively participate in the international academic community.	exam
	Teaching methodology	1	SDUPWr_U06;	The student knows and understands the methodology of conducting classes.	credit
	Psychology	1	SDUPWr_K01;	The student can independently plan and contribute to the development of others.	
	Self-presentation	2	SDUPWr_K02;	The student is able to develop training programmes and curricula and implement them using modern methods and tools.	
Voice emission	1	SDUPWr_K03; SDUPWr_K04; SDUPWr_K05; SDUPWr_K07; SDUPWr_U05; SDUPWr_U07	The student can disseminate knowledge and verify it. The student is able to conduct classes using self-presentation and voice emission methods.		

Development of the discipline and related disciplines	New trends in the discipline and in related disciplines	3	SDUPWr_W03; SDUPWr_W04; SDUPWr_W05; SDUPWr_U01; SDUPWr_U2; SDUPWr_U4; SDUPWr_U5; SDUPWr_U7; SDUPWr_K01	<p>The student knows and understands the main development trends of scientific disciplines relevant to a given science.</p> <p>The student keep up with the latest achievements in the field of exact and natural sciences, agricultural sciences, or engineering and technical sciences</p> <p>The student understands the need to systematically learn about the current trends and innovations in the field of exact and natural sciences, agricultural sciences, or engineering and technical sciences in order to raise general and specialist knowledge.</p> <p>The student demonstrates the need to systematically update the knowledge of natural science in order to use it in practice.</p> <p>The student is able to use new trends and knowledge to identify research problems and disseminate research results as well as fulfil their social obligations in an international professional environment.</p> <p>The student can solve the most complex problems, create innovative solutions based on the use of research results.</p> <p>The student acquires knowledge connected with the application of new trends and analytical techniques as well as knowledge of current research problems.</p>	credit
Interdisciplinary tutorial	Interdisciplinary problem solving	6	SDUPWr_W01; SDUPWr_W04; SDUPWr_W06; SDUPWr_W07; SDUPWr_W09; SDUPWr_U03; SDUPWr_U04; SDUPWr_U05; SDUPWr_U09; SDUPWr_U10; SDUPWr_K01; SDUPWr_K02; SDUPWr_K04; SDUPWr_K05	<p>The student understands the need to follow fundamental issues necessary to understand the development of exact and natural sciences, agricultural sciences, or engineering and technical sciences in a given discipline and related disciplines.</p> <p>The student is able to use advanced techniques and research tools in order to solve complex scientific problems in a given discipline and in an interdisciplinary approach.</p> <p>The student acquires knowledge in the field of modelling and solving research problems, knowledge from outside his or her specialisation, as well as knowledge connected with the natural aspects of his or her specialised research.</p> <p>The student is able to connect and situate his or her research problems in the context of interdisciplinary research.</p> <p>The student is able to use interdisciplinary knowledge to creatively identify, formulate and innovatively solve complex problems or do research tasks, in particular by defining the purpose and subject of research and formulating the research hypothesis.</p> <p>The student knows and understands the economic, legal and other important considerations of research activity.</p>	credit
Scientific research methodology	Design of experiments	1	SDUPWr_W02; SDUPWr_W04; SDUPWr_W06; SDUPWr_W08; SDUPWr_U01; SDUPWr_U03; SDUPWr_U04; SDUPWr_U05; SDUPWr_U09; SDUPWr_U10; SDUPWr_K06	<p>The student can use knowledge from various fields to creatively plan, identify, formulate and innovatively solve complex problems or do research tasks.</p> <p>The student can define the aim and scope of research, correctly formulate a research hypothesis, develop research methods and techniques, and use them creatively.</p> <p>The student can make correct inferences based on research results.</p> <p>The student can transfer research results to the economic and social area.</p>	exam
	Data analysis techniques	4	SDUPWr_W02; SDUPWr_W04; SDUPWr_W06; SDUPWr_U01; SDUPWr_U03; SDUPWr_U04; SDUPWr_U05;	<p>The student is able to properly design an experiment, define key research hypotheses in the discipline, set verification methods and correctly formulate the research and interpretation process.</p> <p>The student knows the basic and fundamental concepts of mathematical statistics, and is able to apply them in practice.</p>	exam

			SDUPWr_K06	<p>The student is familiar with the theory of testing statistical hypotheses, which is a scientific instrument for the verification of research hypotheses. The student knows the key tools needed for data analysis.</p> <p>The student can use basic and advanced features of statistical software to perform a wide variety of statistical analyses.</p> <p>The student knows the research programmes currently conducted in Poland and abroad.</p> <p>The student knows the rules of occupational health and safety, especially with regard to field tests and other tests that pose a health risk (laboratories). The student is able to use advanced research techniques and tools to solve complex scientific problems in a given field of research.</p>	
	Ethics and law in scientific research	1	SDUPWr_W09; SDUPWr_K09; SDUPWr_K10	<p>The student knows and understands the need for ethical and lawful conducting of scientific research.</p> <p>The student is ready to conduct research in order to advance science by addressing professional challenges and preparing publication, taking into account the ethical dimension of research, responsibility for the consequences of one's actions and the need to develop best practices.</p> <p>The student is willing to observe rules regarding the need to maintain the quality of scientific activity, the culture of cooperation and the culture of competition.</p> <p>The student is able to contribute to the development of a pro-quality culture of research in a given discipline and related disciplines.</p>	exam
Workshops	Academic writing	3	SDUPWr_W02; SDUPWr_W08; SDUPWr_W09; SDUPWr_W10; SDUPWr_U02; SDUPWr_U03;	<p>The student is able to efficiently use scientific literature by critically analysing data and materials in electronic form.</p> <p>The student is able to specify key research hypotheses in their discipline, determine methods of their verification and formulate the investigative and interpretative process.</p> <p>The student is able to collect materials and information from a variety of sources (including data from their own research), organise the materials and formulate conclusions.</p> <p>The student knows how to organise scientific activity, in particular how to write and present research findings.</p> <p>The student knows and understands social and legal considerations connected with undertaking and commercialising scientific research.</p> <p>The student knows and understands the broad context of research funding and knowledge transfer on a national and international scale, including issues connected with databases (bibliographic references, citation indexes), project competitions and copyright.</p> <p>The student demonstrates the need to systematically update the knowledge of natural science in order to formulate new research hypotheses in order to obtain external research funds.</p>	credit
	Writing research proposals	3	SDUPWr_U04;		
	Practical and legal considerations of scientific research commercialisation	1	SDUPWr_U05; SDUPWr_K02; SDUPWr_K04; SDUPWr_K08		
Scientific self-development	1. training courses outside UPWr – must be accepted by the supervisor and the Doctoral School Board (1 ECTS point for 1 course) – max. 2 courses	-			
	2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding UPWr scientific societies (1 ECTS point for 1 scientific meeting) – max. 4 scientific meetings	-	SDUPWr_K01; SDUPWr_K02; SDUPWr_K03; SDUPWr_K07	<p>The student is ready to maintain and develop the ethos of the research and creative communities.</p> <p>The student understands the need for scientific self-improvement in order to improve general and specialist knowledge in a given discipline.</p> <p>The student understands the need for lifelong self-improvement.</p>	credit

	3. several-day-long specialist training ending with a certificate of completion; purpose – learning new research techniques, calculation methods (1 ECTS point for one training) – max. 2 specialist training courses	-		The student is ready to acquire the skills needed to better understand and independently plan the determinants of a scientific career.	
	4. active participation in foreign international conferences (oral presentation; 2 ECTS points for one conference) – max. 2 conferences	-			
Teaching practice	Teaching practice in accordance with the Regulations of the Doctoral School of Wrocław University of Environmental and Life Sciences	12	SDUPWr_K02; SDUPWr_K09	The student knows the methodology and techniques of teaching classes. The student is prepared to teach classes in accordance with teaching methodology.	credit

4. Curriculum of the Doctoral School

Framework curriculum of the Doctoral School of Wrocław University of Environmental and Life Sciences

Year I – compulsory coursework

Item	Education module	Name of course	USOS course code	Form of study	Form of course completion	Number of contact hours		ECTS ¹
						term 1	term 2	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
		English for special purposes	SD>P-ANG	classes	credit	-	30	2
		Teaching methodology	SD>P-MPZ	classes	credit	-	5	1
		Psychology	SD>P-PSYCH	classes	credit	-	5	1
		Self-presentation	SD>P-AUTOPR	classes	credit	10	-	2
		Voice emission	SD>P-EG	classes	credit	5	-	1
2.	Interdisciplinary tutorial	Interdisciplinary problem solving	SD>KI-INTERRP	seminar	credit	-	20	6
3.	Scientific research methodology	Design of experiments	SD>MPBN-PD	classes	credit	10	-	1
		Data analysis techniques	SD>MPBN-TAD	classes	credit	-	20	2
		Ethics and law in scientific research	SD>MPBN-EP	lecture	exam	10	-	1
4.	Workshops	Academic writing workshops	SD>W-ARTN	classes	credit	10	-	1
		Writing research proposals workshops	SD>W-PROJ	classes	credit	5	-	1
5.	Scientific self-improvement ²	1. training courses outside UPWr – must be accepted by the supervisor and the Doctoral School Board (1 ECTS point for 1 course) – max. 2 courses	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding UPWr scientific societies (1 ECTS point for 1 scientific meeting) – max. 4 scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. several-day-long specialist training ending with a certificate of completion; purpose – learning new research techniques, calculation methods (1 ECTS point for one training) – max. 2 specialist training courses	SD>SD-SZSPEC	-	credit	-	-	-

		4. active participation in foreign international conferences (oral presentation; 2 ECTS points for one conference) – max. 2 conferences	SD>SD-MKONF	-	credit	-	-	-
6.	Teaching practice	Teaching practice in accordance with the Regulations of the Doctoral School of Wrocław University of Environmental and Life Sciences	SD>PZ-PZ		credit	15 (co-teaching)		4

¹ ECTS – 20 hours of doctoral student’s work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences, scientific meetings.

Year II – compulsory coursework

Item	Education module	Name of course	USOS course code	Form of study	Form of course completion	Number of contact hours		ECTS ¹
						term 3	term 4	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
		English for special purposes	SD>P-ANG	classes	credit/exam ³	30	30	4
2.	Development of the discipline and related disciplines	New trends in the discipline and related disciplines	SD>RDY-DYSCY	lecture	credit	5	5	3
3.	Scientific research methodology	Data analysis techniques	SD>MPBN-TAD	classes	exam	-	20	2
4.	Workshops	Academic writing workshops	SD>W-ARTN	classes	credit	15	5	2
		Writing research proposals workshops	SD>W-PROJ	classes	credit	15	-	2
		Practical and legal considerations of scientific research commercialisation	SD>W-PRKOMERC	lecture	credit	10	-	1
5.	Scientific self-improvement ²	1. training courses outside UPWr – must be accepted by the supervisor and the Doctoral School Board (1 ECTS point for 1 course) – max. 2 courses	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding UPWr scientific societies (1 ECTS point for 1 scientific meeting) – max. 4 scientific meetings	SD>SD-SN	-	credit	-	-	-

		3. several-day-long specialist training ending with a certificate of completion; purpose – learning new research techniques, calculation methods (1 ECTS point for one training) – max. 2 specialist training courses	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in foreign international conferences (oral presentation; 2 ECTS points for one conference) – max. 2 conferences	SD>SD-MKONF	-	credit	-	-	-
6.	Teaching practice	Teaching practice in accordance with the Regulations of the Doctoral School of Wrocław University of Environmental and Life Sciences	SD>PZ-PZ		credit	15 (co-teaching)		4

¹ ECTS – 20 hours of doctoral student’s work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences, scientific meetings.

³ An exam is administered in the last semester of the subject entitled “English for Special Purposes.”

Year III – compulsory coursework

Item	Education module	Name of course	USOS course code	Form of study	Form of course completion	Number of contact hours		ECTS ¹
						term 5	term 6	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
2.	Scientific self-improvement²	1. training courses outside UPWr – must be accepted by the supervisor and the Doctoral School Board (1 ECTS point for 1 course) – max. 2 courses	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding UPWr scientific societies (1 ECTS point for 1 scientific meeting) – max. 4 scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. several-day-long specialist training ending with a certificate of completion; purpose – learning new research techniques, calculation methods (1 ECTS	SD>SD-SZSPEC	-	credit	-	-	-

		point for one training) – max. 2 specialist training courses						
		4. active participation in foreign international conferences (oral presentation; 2 ECTS points for one conference) – max. 2 conferences	SD>SD-MKONF	-	credit	-	-	-
3.	Teaching practice	Teaching practice in accordance with the Regulations of the Doctoral School of Wrocław University of Environmental and Life Sciences	SD>PZ-PZ		credit	15 (co-teaching)		4

¹ ECTS – 20 hours of doctoral student’s work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences, scientific meetings.

Year IV – compulsory coursework

Item	Education module	Name of course	USOS course code	Form of study	Form of course completion	Number of contact hours		ECTS ¹
						term 7	term 8	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
2.	Scientific self-improvement²	1. training courses outside UPWr – must be accepted by the supervisor and the Doctoral School Board (1 ECTS point for 1 course) – max. 2 courses	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding UPWr scientific societies (1 ECTS point for 1 scientific meeting) – max. 4 scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. several-day-long specialist training ending with a certificate of completion; purpose – learning new research techniques, calculation methods (1 ECTS point for one training) – max. 2 specialist training courses	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in foreign international conferences	SD>SD-MKONF	-	credit	-	-	-

		(oral presentation; 2 ECTS points for one conference) – max. 2 conferences						
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¹ ECTS – 20 hours of doctoral student’s work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences, scientific meetings.

5. Duration of education at the Doctoral School: 4 years.

6. Academic degree obtained by the graduate:

- 1) *Doktor* (PhD) of Exact and Natural Sciences in the discipline of Biological Sciences,
- 2) *Doktor* (PhD) of Engineering and Technical Sciences in the following disciplines:
 - a) Civil Engineering and Transport,
 - b) Environmental Engineering, Mining and Energy.
- 3) *Doktor* (PhD) of Agricultural Sciences in the following disciplines:
 - a) Agriculture and Horticulture,
 - b) Nutrition and Food Technology,
 - c) Veterinary Science,
 - d) Animal Science and Fisheries.
- 4) *Doktor* (PhD) of Social Sciences in the discipline of Socio-Economic Geography and Land Management.

7. Education at the Doctoral School ends after:

- 1) Completion of the Doctoral School curriculum,
- 2) Completion of the individual research plan,
- 3) Publication of a JCR-indexed paper,
- 4) Submission of the doctoral dissertation.

