

Plan Szkoły Doktorskiej

Course	Hours			ECTS			Course status	Form of teaching	Form of passing	year I		year II		year III		year IV			
	Total	Organized activities	Other	Total	Direct contact	Self-work				semester 1	semester 2	semester 3	semester 4	semester 5	semester 6	semester 7	semester 8		
																		hour	ECTS
I. General education classes																			
1 Statistical methods in research	50	45	5	4,5	2	2,5	O	Classes	Credit based on grades			45	4,5						
2 Scientific project preparation and commercialization of research results	33	30	3	2	1	1	O	X	Credit based on grades			30	2						
3 Ethics in science and intellectual property law	18	15	3	1	0,5	0,5	O	Lectures	Credit based on grades	15	1								
4 Teaching methods in higher education	33	30	3	3	1	2	O	Classes	Credit based on grades	30	3								
5 Specialised english language workshops in the fields of science	18	15	3	1	0,5	0,5	O	Classes	Credit based on grades	15	1								
6 Principles of writing scientific papers and preparing conference presentations	18	15	3	1	0,5	0,5	O	Lectures/classes	Credit	15	1								
7 Data visualization methods in scientific studies	18	15	3	1	0,5	0,5	O	Classes	Credit	15	1								
8 History of science	18	15	3	1	0,5	0,5	O	Lectures	Credit			15	1						
Total I	206	180	26	14,5	6,5	8	X	X	X	90	7	90	7,5	0	0	0	0	0	
II. Classes in the field of study																			
1 Course A/- Agricultural sciences , natural sciences and medical and health sciences 1)/2)	25	20	5	1,5	1	0,5	O	Lectures/classes	Exam/Credit based on grades					20	1,5				
2 Course B - Engineering and technology sciences 1)/2)	25	20	5	1,5	1	0,5	O	Lectures	Exam/Credit based on grades					20	1,5				
3 Course C - Humanities, social and theological sciences 1)/2)	25	20	5	1,5	1	0,5	O	Lectures	Exam/Credit based on grades					20	1,5				
Total II	75	60	15	4,5	3	1,5	X	X	X	0	0	0	0	60	4,5	0	0	0	
including a choice of:	25	20	5	1,5	1	0,5	X	X	X					20	1,5				
III. Seminars																			
1 Field of study seminars	68	60	8	4	2	2	O	Seminars	Credit based on grades			15	1			15	1	15	1
Total III	68	60	8	4	2	2	X	X	X	0	0	15	1	0	0	15	1	15	1
IV. Professional practice																			
1 Professional practice*	150	0	150	10	0	10	O	Practice	Credit based on grades	year I		year II		year III		year IV			
										hour	ECTS	hour	ECTS	hour	ECTS	hour	ECTS		
										30	2	60	4	60	4				
Total I-IV	499	300	199	33	11,5	21,5	x	X	x	225	17,5	135	9,5	75	5	15	1		
including a choice of:	25	20	5	1,5	1	0,5	F	X	Exam/Credit based on grades	0	0	20	1,5	0	0	0	0		
V. Training																			
1 Safety and hygiene at work	4	4	0	X	X	X	O	Lectures	Credit	4	X								
2 Animal protection training in scientific experiments and didactics **	27	27	0	X	X	X	F	Lectures/classes	Credit			27	X						

1) the doctoral student shall be required to choose two subjects in the field/discipline indicated in his/her individual research plan

2) the doctoral student shall be required to choose one subject in the field/discipline indicated in his/her individual research plan

* a first-year doctoral student shall undertake practical training solely in the form of participation in the teaching of courses

** training for doctoral student performing activities related to the use of animals for scientific or educational purposes

Elective course list

Course A - Agricultural sciences , natural sciences and medical and health sciences

1. Production technologies and use of bioresources
2. Modern cell and tissue imaging techniques
3. Advanced methods in molecular biology
4. Trends in production of raw materials used for food and non-food purposes

Course B - Engineering and technology sciences

1. The role of environmental engineering in civilization
2. GNSS systems and their application in scientific research
3. Mechanical engineering problems

Course C - Humanities, social and theological sciences

1. European cultural heritage - protection, management and use (historical, social and economic aspects)
2. Symbol and symbolization of public space
3. Entrepreneurship in scientific activity
4. Philosophical foundations of contemporary methodology of sciences
5. Contemporary social and educational discourses
6. Private and public law in the European context*