A COURSE SYLLABUS – DOCTORAL SCHOOL

REGARDING THE QUALIFICATION CYCLE FROM 2021 TO 2025

GENERAL INFORMATION ABOUT COURSE			
ourse title Doctoral seminar			
Name of the unit running the course	ne of the unit running the course Doctoral School at University of Rzeszów		
Type of course (obligatory, optional) obligatory			
Year and semester of studies	I-IV/ sem. I-VIII		
Discipline	agriculture and horticulture		
Language of Course	Polish		
Name of Course coordinator	Prof. dr hab. Jadwiga Stanek-Tarkowska		
Name of Course lecturer	Prof. dr hab. Jadwiga Stanek-Tarkowska		
rerequisites Knowledge of agricultural and horticultural sciences and soil biology			
the level of upper secondary education.			
BRIEF DESCRIPTION OF COURSE			
(100-200 words)			

Types of scientific research (basic research, applied research, development work) and institutions established to finance them. Principles of scientific, observational and experimental research for finding new solutions. To expand knowledge related to the biological, chemical and physical properties of soil, to acquire the ability to perform soil analysis (soil properties) independently, and to expand skills related to the determination of soil microorganisms (bacteria). To learn about the microbiological properties of soil under the influence of unconventional fertilization. To learn to design an experiment and conduct it, to take samples and prepare them for analysis in the laboratory, to analyze the obtained results and their presentation in the form of: speeches at conferences, scientific articles. To learn how to write projects (grants), in order to obtain external funds.

COURSE LEARNING OUTCOMES AND METHODS OF EVALUATING LEARNING OUTCOMES				
Learning outcome	The description of the learning outcome defined for the course	Relation to the degree programme outcomes (symbol)	Learning Format (Lectures, classes,)	Method of assessment of learning outcomes (e.g. test, oral exam, written exam, project,)
Knowledge (no.)				
1	Has a broad global knowledge and knows the concepts and processes of the soil environment and how it affects plants and microorganisms.	P8S-WG/1	Individual work with a PhD student	Project, Art. scientific, presentation at conference
2	Understands the need for interdisciplinary research, especially the development of the discipline of agriculture and horticulture in light of the latest research.	P8S-WG/2	Individual work with a PhD student	Project, Art. scientific, presentation at conference
3	Knows the principles and methods of scientific research, understands the need to disseminate research results, presentations at conferences and scientific publications and commercialization of research, establishing cooperation with the economic environment.	P8S-WG/4 P8S-WK/3	Individual work with a PhD student	Project, Art. scientific, presentation at conference

4	Knows the methodology of scientific research used in the discipline of agriculture and horticulture.			, 5		ridual work a PhD student	Project, Art. scientific, presentation at conference	
Skills								
(no.) 1	Can combine knowledge from different disciplines to conduct research, introduce research methods and techniques used in another discipline to their research.			P8S-U	W/1		ridual work a PhD student	Project, Art. scientific, presentation at conference
2	He is able to critically analyze the received research results, conduct discussions on specialized topics, actively participating in conferences, congresses and other public speeches. Is able to communicate his knowledge and present results in a popular form.			P8S-UW/3 P8S-UW/2 P8S-UK/1 P8S-UK/2			Project, Art. scientific, presentation at conference	
3	Can initiate discussion and actively participate in it.		P8S-UK/ ₃ Individual wo with a PhD studer			Project, Art. scientific, presentation at conference		
4	He is able to plan independently for his own development and organize team research projects.			P8S-UO Individual work with a PhD student		Discussion		
Social competence (no.)								
1	Critically evaluate his/her own and others' achievements within the discipline and the importance of these achievements in the development of the discipline.		P8S-K P8S-K P8S-K	K/2	Individual work with a PhD student		Project, Art. scientific, presentation at conference	
2	Recognize the intellectual property and publication integrity of research results. Is ready to thrive in the scientific community.		with a PhD studer			Project, Art. scientific, presentation at conference		
	LEARNING FORMAT – NUMBER OF HOURS							
Semester (no.)	Lectures	Seminars	Lab cl	asses	Interns	hips	others	ECTS
I-VIII		240 hrs. - 8 x 30 hrs.				-		0

METHODS OF INSTRUCTION

INDIVIDUAL WORK (IN LAB, JOINT INSTRUCTION), WORK IN A RESEARCH GROUP, DISCUSSION, PRESENTATION OF RESULTS AND THEIR ANALYSIS.

COURSE CONTENT

Program contents implemented in the whole cycle of education from the course Doctoral Seminar:

Getting acquainted with the methodology of research in the discipline of agriculture and horticulture, Learning how to write scientific papers and projects.

COURSE ASSESSMENT CRITERIA

Credit for the course after each semester, the form resulting from the curriculum: passed - pass, not passed - nzal.

Publication of 4 to 5 papers from the JCR list, active participation in at least 4 foreign conferences.					
Presentation of a	dissertation on the basis of: 1. a series of scien	tific articles or monographs.			
	D STUDENT WORKLOAD REQUIRED TO				
	OUTCOMES				
	– NUMBER OF HOURS AND				
Activity		Number of hours			
Scheduled course	contact hours	240 hrs. – 8 x 30 hrs.			
		,			
0+1					
examinations)	urs involving the teacher (consultation hours,				
examinations)					
	ors – student's own work (preparation for	480 hrs.			
classes or examin	ations, project, etc.)				
Total number of	hours	720 hrs.			
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Total number of	ECTS credits	0			
	INSTRUCTIONAL MA	TERIALS			
Compulsory	THE LATEST SCIENTIFIC ARTICLES ON RESEARCH IN THE FIELD OF AGRICULTURE, BIOLOGY AND				
literature:	BIOTECHNOLOGY				
<u> </u>					
Complementary literature:					
iiterature:					
Date and signature of the Course lecturer					
Approved	Approved by the Head of the Department or an authorised person				
Approved by the nead of the Department of an authorised person					