A COURSE SYLLABUS – DOCTORAL SCHOOL

REGARDING THE QUALIFICATION CYCLE FROM…2020.. TO…2024…

GENERAL INFORMATION ABOUT COURSE	
Course title	**Seminar**
Name of the unit running the course	Doctoral School at University of Rzeszów
Type of course *(obligatory, optional)*	obligatory
Year and semester of studies	Years I, II, III, IV/ semester I-VIII
Discipline	Agriculture and Horticulture
Language of Course	polish
Name of Course coordinator	Dr hab. inż. Renata Tobiasz-Salach prof. UR
Name of Course lecturer	Dr hab. inż. Renata Tobiasz-Salach prof. UR
Prerequisites	Knowledge of subjects pursued according to study programs in the fields of agricultural and horticultural studies

BRIEF DESCRIPTION OF COURSE
(100-200 words)

At the seminar, the doctoral student will gain information on how to prepare and present scientific papers with respect for copyright and intellectual property. Become familiar with the principles of planning agrotechnical research, selection of research methods and their verification in the field of agriculture and horticulture. They will learn the methodology of agricultural research, methods of planning and implementing individual and team research projects in the national and international environment. It will deepen the awareness and importance of social and professional responsibility for the present condition and shaping the agricultural environment. He will learn the principles of knowledge transfer to the economic and social zone and the commercialization of research results in the field of agriculture and horticulture.

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	Knows and understands the basic and specific issues related to agriculture and horticulture.	**P8S-WG/1**	seminar	continuous observation during classes
2	Has knowledge of the state and prospects for the development of agriculture and horticulture.	**P8S-WG/2**	seminar	continuous observation during classes
3	Knows and understands the methodology of scientific research	**P8S-WG/3**	seminar	oral presentation, continuous observation during classes
4	Knows and understands the principles of disseminating scientific activities in the field of agriculture and horticulture	**P8S-WG/4**	seminar	oral presentation, continuous observation during classes
5	Knows and understands the principles of knowledge transfer to the economic and social area and the commercialization of research results in the field of agriculture and horticulture.	**P8S-WK/3**	seminar	oral presentation, continuous observation during classes
Skills (no.)				

1	Is able to use knowledge in the field of science Agriculture and Horticulture to creatively identify and innovative solutions to research problems (define the goal and define a research hypothesis, develop research methods, techniques and tools, and correctly infer research results)	**P8S-UW/1**	seminar	presentations, continuous observation during classes
2	Can make a critical analysis and evaluation of the results of scientific research, expert activity and other creative work in the development of knowledge in the field of Agriculture and Horticulture	**P8S-UW/2**	seminar	presentations, continuous observation during classes
3	Can transfer the results of scientific activity to the economic and social area	**P8S-UW/3**	seminar	presentations, continuous observation during classes
4	Can communicate on specialist topics at national and international conferences	**P8S-UK/1**	seminar	continuous observation during classes
5	Can disseminate research results in scientific publications	**P8S-UK/2**	seminar	continuous observation during classes, presentation of a scientific publication
6	Can initiate a debate.	**P8S-UK/3**	seminar	continuous observation during classes
7	Can participate in the scientific discourse.	**P8S-UK/4**	seminar	continuous observation during classes, presentations,
8	Can plan and implement individual and team research projects in the national and international environment	**P8S-UO**	seminar	continuous observation during classes
9	Can independently plan and act for his own development as well as inspire and organize the development of other people.	**P8S-UU/1**	seminar	continuous observation during classes
Social competence (no.)				
1	Is ready to critically evaluate the scientific achievements within the discipline of agriculture and horticulture	**P8S-KK/1**	seminar	continuous observation during classes
2	Is ready to critically evaluate its own contribution to the development of the discipline of agriculture and horticulture.	**P8S-KK/2**	seminar	continuous observation during classes
3	Is ready to recognize the importance of knowledge in solving cognitive and practical problems	**P8S-KK/3**	seminar	continuous observation during classes
4	Is willing to sustain and develop the ethos of research and creative environments, including: -conduct scientific activities in an	**P8S-KR**	seminar	continuous observation during classes

	independent manner -respect the principle of public ownership of the results of scientific activity, taking into account the principles of intellectual property protection			

5LEARNING FORMAT – NUMBER OF HOURS

Semester (no.)	Lectures	Seminars	Lab classes	Internships	others	ECTS
1,2,3,4,5,6,7,8					seminar	-

METHODS OF INSTRUCTION

Seminar: individual and group work in the implementation of assigned tasks, solving tasks, analysis of research results with discussion, preparation of a presentation and its presentation, analysis of a doctoral dissertation.

COURSE CONTENT

Semester 1. Principles of writing doctoral dissertations respecting the copyrights of the used scientific literature. Anti-plagiarism regulations in force at the University of Rzeszów. Principles of methodology of field and laboratory research. Analysis of similar research studies on the research problem undertaken by the PhD student. Development of a research scheme conducted by a doctoral student. (30 hours).
Semester 2. Assumption of the first test cycle. Selection of statistical methods for the correct development of research results. Principles of presentation of research results and statistical analyzes. (30 hours).
Semester 3. Statistical analysis and discussion of the research results from the first cycle of field experiments. Presentation of the results. Initial laboratory analysis (30 hours).
Semester 4. Assumption of the second test cycle. Analysis and discussion of the results from the second cycle of years of field research. Presentation of the results. Laboratory analysis of research (30 hours).
Semester 5. Analysis and discussion of the results from the second cycle of research years. Presentation of the results. Laboratory analysis (30 hours).
Semester 6. Assumption of the third test cycle. Analysis and discussion of the results. Presentation of the results. Laboratory analysis (30 hours).
Semester 7. Analysis and discussion of the results from the second cycle of research years. Presentation of the results. Laboratory analysis (30 hours).
Semester 8. Correct interpretation of three-year research results, discussion, correct conclusions. Development of a scientific monograph. (30 hours).

COURSE ASSESSMENT CRITERIA

The condition for completing the course is achieving all the intended learning outcomes. Credit on the basis of presentations, scientific publications and preparation of a doctoral monograph.

TOTAL PhD STUDENT WORKLOAD REQUIRED TO ACHIEVE THE INTENDED LEARNING OUTCOMES
– NUMBER OF HOURS AND ECTS CREDITS

Activity	Number of hours
Scheduled course contact hours	240
Other contact hours involving the teacher (consultation hours, examinations)	20
Non-contact hours – student`s own work (preparation for classes or examinations, project, etc.)	150

Total number of hours	410
Total number of ECTS credits	-
INSTRUCTIONAL MATERIALS	
Compulsory literature:	MĄDRY W. „ PLANNING OF FACTORIAL EXPERIMENTS AND ANALYSIS OF THE RESULTS. SGGW", WARSAW. 1996. MĄDRY W." FACTOR EXPERIENCES. ED. FOUNDATION "DEVELOPMENT OF SGGW", WARSAW. 2009. WEINER J. „TECHNIQUE OF WRITING AND PRESENTING NATURAL SCIENCE WORKS". PWN, WARSAW. 2009. WOŁEK J. „THE INTRODUCTION TO STATISTICS FOR BIOLOGISTS". ED. SCIENTIFIC DEPARTMENT OF THE PEDAGOGICAL ACADEMY, KRAKÓW. 2006. WOJCIECHOWSKI R. „METHODICAL GUIDE TO WRITING A THESIS". CDI DIFIN 2010.
Complementary literature:	Rawa T. Methodology of performing engineering and master's theses. Ed. UWM in Olsztyn 2012. Specialist literature on the preparation of a doctoral dissertation.