

**A COURSE SYLLABUS – DOCTORAL SCHOOL  
REGARDING THE QUALIFICATION CYCLE FROM 2019 TO 2023**

<b>GENERAL INFORMATION ABOUT COURSE</b>				
Course title	PhD seminar			
Name of the unit running the course	Doctoral School at University of Rzeszów			
Type of course ( <i>obligatory, optional</i> )	obligatory			
Year and semester of studies	2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> ; III-VIII semester			
Discipline	Food technology and Nutrition			
Language of Course	Polish			
Name of Course coordinator	dr hab. inż. Małgorzata Dżugan, prof. UR			
Name of Course lecturer	dr hab. inż. Małgorzata Dżugan, prof. UR			
Prerequisites	Initial dissertation plan			
<b>BRIEF DESCRIPTION OF COURSE (100-200 words)</b>				
<p>The subject of seminars conducted in individual semesters of education at the doctoral school covers all aspects supporting the progress of the doctoral student's research work. The main objectives of the course include: getting to know the methodology of scientific work in the discipline and preparation of the concept of an experiment, improvement of skills related to the research workshop, critical analysis of own and other authors' research results, presentation of own research results at conferences and their dissemination in publications.</p>				
<b>COURSE LEARNING OUTCOMES AND METHODS OF EVALUATING LEARNING OUTCOMES</b>				
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,...)
<b>Knowledge (no.)</b>				
1	Developing detailed knowledge in the area of doctoral dissertation topics	P8S-WG/1, P8S-WG/2	Seminar	Discussion Continuous assessment
2	Gaining knowledge on the use of biological models in food research	P8S-WG/3	Seminar	Discussion Continuous assessment
3	Getting to know the rules of disseminating the results of scientific activity	P8S-WG/4	Seminar	Discussion, preparation of the publication
4	Understanding the principles of transferring knowledge to the economic and social sphere as well as commercializing the results of scientific activity and know-how related to these results	P8S-WK/3	Seminar	Participation in projects with the industry
<b>Skills (no.)</b>			Seminar	
1	Mastering the analytical techniques selected for implementation to work	P8S-UW/1	Seminar	Conducting own research
2	Critical evaluation and analysis of	P8S-UW/2	Seminar	Processing

	research results related to the topic of work				the results and their discussion	
3	Presenting your results and views through presentations and discussions at national and international meetings	P8S-UK/1, P8S-UK/3, P8S-UK/4	Seminar		Speech at the conference	
4	Disseminating research results in a popular science form	P8S-UK/2,	Seminar		Publication in beekeeping journal	
5	Conducting research in a research team, also in cooperation with external scientific institutions in the country and abroad	P8S-UO	Seminar		Continuous assessment	
6	Planning of self-development, participation in available trainings in the field of analytical equipment operation	P8S-UU/1	Seminar		Participation in the training	
<b>Social competence (no.)</b>						
1	Recognition of the importance of knowledge in solving cognitive and practical problems	P8S-KK/3	Seminar		Discussion Continuous assessment	
2	Ability to comparative analysis and critical evaluation of own and other scientists' achievements with the use of bibliometric indicators	P8S-KK/1, P8S-KK/2	Seminar		Discussion, using the Scopus database	
3	Ability to maintain ethics in science	P8S-KR	Seminar		Discussion	
<b>LEARNING FORMAT – NUMBER OF HOURS</b>						
Semester (no.)	Lectures	Seminars	Lab classes	Internships	others	ECTS
III-VIII	—	—	—	—	180	0
<b>METHODS OF INSTRUCTION</b>						
A problem-solving lecture/a lecture supported by a multimedia presentation/ discussion, text analysis, searching for data in bibliometric databases, project work						
<b>COURSE CONTENT</b>						
<p>The topics and scope of the seminars include issues related to:</p> <ul style="list-style-type: none"> <li>- planning and organizing research carried out independently and in research teams,</li> <li>- the method of obtaining, coding and preserving biological material,</li> <li>- analytical methods used in the analysis of the chemical composition and assessment of the activity of biological material,</li> <li>- conducting nutritional experiments with laboratory animals using the 3R principle,</li> <li>- methods of collecting and processing results and their graphic presentation.</li> <li>- interpretation of the obtained results and their reference to the current state of knowledge.</li> <li>- rules for the preparation of scientific articles and manuscript submissions for publication in the scientific journal with Impact Factor,</li> <li>- the possibility of obtaining funds for research and applying for research projects and in cooperation with the economy,</li> <li>- rules for the preparation, evaluation and defense of doctoral dissertations.</li> </ul>						
<b>COURSE ASSESSMENT CRITERIA</b>						
<b>V semester:</b> presentation at a scientific conference, participation in open lectures / webinars / training courses,						

preparation of 1 popular science publication

**VI semester:** presentation at a scientific conference, participation in open lectures / webinars / training, preparation of a scientific publication for the PhD thesis planned cycle

**VII semester:** presentation at a scientific conference, participation in the preparation of a grant application, participation in open lectures / webinars / training sessions, preparation of a scientific publication for the PhD thesis planned cycle

**VIII semester:** presentation at a scientific conference, preparation of a doctoral dissertation

**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	180
Other contact hours involving the teacher (consultation hours, examinations)	
Non-contact hours – student`s own work (preparation for classes or examinations, project, etc.)	180
<b>Total number of hours</b>	360
<b>Total number of ECTS credits</b>	0

**INSTRUCTIONAL MATERIALS**

Compulsory literature:	Mazik M. 2019. Dary pszczół. Agencja Wydawnicza „Ergos”, Warszawa Krell. R. 1996. Value- added products from beekeeping. FAO Agricultural Services Bulletin, Roma Kędzia B., Hołderna-Kędzia E. 2017. Mniej znane produkty pszczele. Sądecki Bartnik, Stróże Tichonow A.I., i in. 2017. Miód naturalny w medycynie i farmacji. Sądecki Bartnik, Stróże. Siuda P. Wasylczyk P. 2018. Publikacje naukowe. Praktyczny poradnik. PWN 2018.
Complementary literature:	Scientific review articles, original papers and textbooks in Polish and English, at the choice of the PhD student or recommended by the supervisor