

Course title:	Science - make the unfamiliar familiar
Course title in Polish:	Z nauką za pan brat
Course for discipline:	veterinary medicine, biological sciences, zootechnology

Semester:	3	Status of course:	faculty	Language:	english
Academic year:	2026/27	Catalog number:	163/2025/26		

Coordinator of course:	dr hab. Katarzyna Zabielska-Koczywąs	
Lecturer od course:	dr hab. Katarzyna Zabielska-Koczywąs	
Executing unit:	Institute of Veterinary Medicine	
Ordering unit:	Doctoral School SGGW	
Assumptions, goals and description of the course:	The main aim of the course is to learn scientific thinking, to get guidance on scientific writing with high ethical standards. Students will learn how to formulate a proper research hypothesis, how to choose the topic for their research or review article, and how to convince readers of its importance to society. Students will learn how AI can help them to write scientific articles with high ethical standards and how to choose appropriate references for their review articles. Students will learn how to respond to reviewers' comments and how the different outcome of the trial from what was expected can be valuable. In addition, the students will learn a simple Western technique - the Western blot of the XXI century - and perform experiments and interpret the results on their own, which is a unique skill in Poland, as the Warsaw University of Life Sciences is currently one of four universities that have a JESS system for performing such analyses.	
Didactic form, number of hours:	9 h-labs, 6h-lectures	
Teaching methods:	Lectures -presentations. Labs - interactive presentations, practical labs.	
Limit of people in the group:	8	
<b>Learning outcomes</b>		
<b>KNOWLEDGE - the graduate knows and understands:</b>	<b>SKILLS - the graduate is able to:</b>	<b>COMPETENCES - the graduate is ready to:</b>
To the extent enabling to revise the existing paradigms in the field/discipline - the world achievements, gathering theoretical background as well as general and selected detailed issues	Carry out critical assessment of the scientific research findings and expert activities and their contribution to the knowledge development in the field/discipline	Critically evaluate the achievements in the field/discipline represented
Major general development trends in the field/discipline	<del>Carry out critical assessment of the scientific research findings and expert activities and their contribution to the knowledge development in the field/discipline</del>	Recognise knowledge in solving cognitive and practical problems characteristic for the area of research (field/discipline) and in an interdisciplinary aspect
<del>To the extent enabling to revise the existing paradigms in the field/discipline - the world achievements, gathering theoretical background as well as general and selected detailed issues</del>	<del>Carry out critical assessment of the scientific research findings and expert activities and their contribution to the knowledge development in the field/discipline</del>	Support the ethos of scientific circles and conduct independent research
The method of verification of learning outcomes:	Written - preparing an abstract on the chosen topic.	
Form of documentation of achieved learning outcomes:	written	
Elements and weights of the final grade:	activity during the labs (50%) and written abstract (50%)	
Place of the course:	any lecture room in building 22 and 133 room in building 22 of the Laboratory of Preclinical and Clinical Nanooncology	
<b>Basic and supplementary literature</b>		
Comments:		

Estimated number of hours of work of the doctoral student necessary to achieve the assumed learning outcomes:	30
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Learning outcomes reference to the second degree characteristics of the National Qualification Framework (level 8) covering doctoral competences:		
Symbol:	Learning outcomes:	8 level NQF
SD1_KW01	To the extent enabling to revise the existing paradigms in the field/discipline - the world achievements, gathering theoretical background as well as general and selected detailed issues	P8S_WG
SD1_KW02	Major general development trends in the field/discipline	P8S_WG
SD1_KU05	Carry out critical assessment of the scientific research findings and expert activities and their contribution to the knowledge development in the field/discipline	P8S_UW
SD1_KK01	Critically evaluate the achievements in the field/discipline represented	P8S_KK
SD1_KK03	Recognise knowledge in solving cognitive and practical problems characteristic for the area of research (field/discipline) and in an interdisciplinary aspect	P8S_KK
SD1_KK08	Support the ethos of scientific circles and conduct independent research	P8S_KR