

**COURSE SYLLABUS – DOCTORAL SCHOOL
EDUCATION CYCLE FROM 2024/2025 TO 2027/2028**

GENERAL INFORMATION ABOUT THE COURSE				
Course title	PUBLIC SPEAKING			
Name of the unit delivering the course	Doctoral School at the University of Rzeszów			
Type of course (compulsory, elective)	compulsory course			
Year/semester	year II, semester III			
Discipline	biotechnology			
Language of instruction	Polish/English			
Course coordinator (name and surname)	Prof. Andriy Sybirnyy, PhD			
Course instructor(s) (name and surname)	Prof. Andriy Sybirnyy, PhD			
Prerequisites	Working with specialised computer programmes. Proficiency in synthetic description, graphic description and explanation of issues related to research topics in the field of biotechnology, in the context of ongoing research activities. Knowledge of specialised English at B2 CEFR level.			
COURSE SUMMARY (synthetic description of content and objectives; 100–200 words)				
<p>The subject 'Public Speaking' aims to organise and consolidate knowledge, skills and social competences in the field of preparing public speeches and presenting one's own research results. The topics discussed will include, among others:</p> <ul style="list-style-type: none"> - the role of conferences, seminars and other popular science events in scientific development; - the proper preparation of the structure of a presentation; - developing the ability to join and participate in thematic discussions; - formulating and asking questions and answering questions asked; - presenting arguments and conclusions; - issues related to effective presentation methods used during public speaking; - familiarisation with the principles of verbal and non-verbal communication; - developing appropriate body language and gestures; - ways of dealing with emotions associated with public speaking. 				
LEARNING OUTCOMES FOR THE COURSE AND VERIFICATION METHODS				
Learning outcome symbol	Intended learning outcomes	Reference to learning outcomes for qualifications at PRK level 8 (symbol)	Form of classes (lecture, exercises, etc.)	Verification methods (e.g., test, oral exam, written exam, project, etc.)
Knowledge No.	knows and understands, has knowledge of:			
P8S-WG₁	Possesses theoretical knowledge, is familiar with current scientific achievements, including global ones, in the chosen research topic in the scientific discipline of biotechnology and general issues in related disciplines, especially those related to the topic of the research conducted, has knowledge about its place in the scientific system, which allows for determining its	P8S-WG	exercises	oral response

	significance in comparison with other fields.			
Skills No.	is able to:			
P8S_UK1	Statistically and graphically process the results of scientific research, prepare and deliver a presentation in Polish and a foreign language in various specialist scientific environments. Communicate on specialist topics in the field of biotechnology and related disciplines within the scope of research interests to a degree that enables active participation in the national and international scientific community.	P8S_UK	exercises	oral response
P8S_UK3	Can prepare a scientific conference plan, can organise and actively participate in scientific conferences and other popular science events.	P8S_UK	exercises	oral response
P8S_UK4,	Can be an active participant in scientific discourse and other scientific events, can initiate scientific discussions and debates based on evidence and facts.	P8S_UK	exercises	oral response
P8S_UK5	Can participate in discussions related to the scientific discipline or area of their scientific research in biotechnology in Polish and a foreign language that is the leading language for the discipline.	P8S_UK	exercises	oral response
P8S_UK6	Is able to communicate in a foreign language at level B2 of the Common European Framework of Reference for Languages in order to present their own research results and participate in discussions on scientific and professional topics in various national and international environments.	P8S_UK	exercises	oral response
Social competences No.	is ready to:			
P8S_KR1	Is ready to conduct scientific research independently, as well as to continuously work on developing and maintaining the ethos of research communities and publishing the results of their scientific research, while complying with the principles of intellectual property protection.	P8S_KR	exercises	oral response

FORMS OF CLASSES, NUMBER OF HOURS AND CREDITS

Semester (no.)	Lecture	Exercises/Cla ses	Lab.	Practi cal	Other	Number of ECTS credits
III	-	6	-	-	-	1

TEACHING METHODS	
Discussion, conversation, lecture, presentation, speech with multimedia presentation, observation	
PROGRAMME CONTENT	
Exercises: description of course topics	
<p>Topic 1: Preparing and delivering a presentation during class, with particular emphasis on presenting research results in the field of biotechnology and microbiology.</p> <p>Topic 2: Presentation methods used in public speaking. Rules for preparing presentations that increase the effectiveness of communicating scientific research results.</p> <p>Topic 3: Preparing a multimedia presentation using computer programmes such as GraphPad Prism, RStudio or BioRender for visualising experimental data and biological processes.</p> <p>Topic 4: Giving public presentations, including in English, with simulations of presentations at national and international conferences.</p> <p>Topic 5: The role of public speaking in scientific development, the popularisation of biotechnological research and the establishment of international cooperation.</p> <p>Topic 6: Building self-confidence and exploiting one's own potential, with an emphasis on the precision of scientific language, the ethical presentation of research data and effective stress management during presentations.</p>	
COURSE COMPLETION REQUIREMENTS (ASSESSMENT CRITERIA)	
<p><i>The assessment takes the form of an oral examination based on papers prepared and delivered by the doctoral student on public speaking and a multimedia presentation on the results of their research.</i></p> <p><i>The following are assessed: preparation of papers and presentations, the form of their delivery (clarity, lucidity), ability to answer questions.</i></p> <p><i>Grade 5.0 - very good preparation of papers and presentations, very good form of delivery, very well-formulated answers to questions asked</i></p> <p><i>Grade 4.5 - above average preparation of papers and presentations, above average form of delivery, above average ability to answer questions asked</i></p> <p><i>Grade 4.0 - good preparation of papers and presentations, good delivery, good ability to formulate answers to questions asked</i></p> <p><i>Grade 3.5 - above average preparation of papers and presentations, above average delivery, above average ability to formulate answers to questions asked</i></p> <p><i>Grade 3.0 – average preparation of papers and presentations, average delivery, average ability to formulate answers to questions asked.</i></p> <p><i>Grade 2.0 – average preparation of papers and presentations, average delivery, failure to answer questions asked.</i></p>	
TOTAL DOCTORAL STUDENT WORKLOAD REQUIRED TO ACHIEVE THE INTENDED LEARNING OUTCOMES IN HOURS AND ECTS CREDITS	
Type of activity	Average number of hours to complete the activity
Hours completed in direct contact resulting from the study programme	6
Other with teacher participation (participation in consultations, examination)	1
Hours completed independently by the doctoral student (preparation for classes, exam, writing a talk, etc.)	22
TOTAL HOURS	28

TOTAL NUMBER OF ECTS CREDITS*		1
LITERATURE		
Required reading:	<ol style="list-style-type: none"> 1. EDWARD J. HALL, SCIENTIFIC PRESENTATION SKILLS: A GUIDE FOR RESEARCHERS IN THE LIFE SCIENCES, CAMBRIDGE UNIVERSITY PRESS, 2021. 2. DAVID M. SCHULTZ, ELOQUENT SCIENCE: A PRACTICAL GUIDE TO BECOMING A BETTER WRITER, SPEAKER, AND ATMOSPHERIC SCIENTIST, AMS, 2009. 3. ANDRIY SIBIRNY (ED.), BIOTECHNOLOGY OF YEASTS AND FILAMENTOUS FUNGI, SPRINGER, 2025 4. COOPER T. G. (2023). HOW TO THINK ABOUT AND DO SUCCESSFUL RESEARCH WHAT YOU PROBABLE DID NOT LEARN WHEN YOU FIRST ENTERED THE LABORATORY. FEMS YEAST RESEARCH, 23, FOAC065. HTTPS://DOI.ORG/10.1093/FEMSYR/FOAC065 	
Supplementary reading:	<ol style="list-style-type: none"> 1. PRZEMYSŁAW KUTNYJ, SZTUKA AUTOPREZENTACJI I WYSTĄPIEŃ PUBLICZNYCH. NA ŻYWO I ONLINE, PWN, 2020 	

*(1 ECTS credit corresponds to 25–30 hours of the doctoral student's total workload required to achieve the intended learning outcomes)

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Date and signature of the course instructor

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Approval of the Head of the Unit or an authorised person