A COURSE SYLLABUS – DOCTORAL SCHOOL

REGARDING THE QUALIFICATION CYCLE FROM 2025TO 2029.

GENERAL INFORMATION ABOUT COURSE	
Course title	**OPTIONAL SPECIALISED SUBJECT: How the mind works – consciousness, memory, social behaviour.**
Name of the unit running the course	Doctoral School at the University of Rzeszów
Type of course *(obligatory, optional)*	optional specialised
Year and semester of studies	year 2025/26, semester: II,
Discipline	**Biological sciences**
Language of Course	Polish language/English language
Name of Course coordinator	**Konrad Leniowski, PhD, Professor at the University of Rzeszów**
Name of Course lecturer	**Konrad Leniowski, PhD, Professor at the University of Rzeszów**
Prerequisites	In-depth knowledge of human anatomy, animal physiology and behavioural ecology. Knowledge of English at B2 CEFR level, with a focus on specialist vocabulary for biological sciences.

BRIEF DESCRIPTION OF COURSE
(100-200 words)

The aim of the OPTIONAL SPECIALISED SUBJECT: 'How the mind works – consciousness, memory, social behaviour' is to organise doctoral students' knowledge about the functioning of the brain, its evolution and the paths of natural selection. Another objective is to review current research on the processes of consciousness, memory and the range of social behaviours in representatives of the most highly organised animal groups. Examples of experiments will be presented to help understand the complexity of thought processes, including short-term memory and social phenomena. The course also aims to influence open-mindedness, the boundaries of views and the ability to understand the world in the areas of justice, social norms, cooperation and altruism. The final objective of the course is to consolidate knowledge and social competences on the impact of modern human lifestyles on brain function.

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.)	***Knows and understands, expresses knowledge***			
P8S_WG1	He has extensive theoretical knowledge based on the latest research findings on the structure and functioning of the primate brain, which he uses to objectively address existing hypotheses concerning its evolution in social organisms.	P8S_WG	seminar	oral examination,
P8S_WG2	He has extensive knowledge and is familiar with the latest global scientific achievements and global development	P8S_WG	seminar	oral examination,

	trends in the field of cognitive abilities in primates.			
P8S_WG3	Knows, understands and applies the terminology appropriate to the discipline of biology and related disciplines in Polish and in a foreign language leading in the discipline.	P8S_WG	seminar	oral examination,
P8S_WK1	Has knowledge of the impact of technical progress and technology on the advancement of civilisation, including the discovery of new possibilities related to the study of consciousness, memory and social control of behaviour.	P8S_WK	seminar	oral examination,
Skills (no.)	***Able to***			
P8S_UW1	Based on interdisciplinary knowledge in the field of biological sciences, they are able to formulate and set ambitious research goals related to the study of behavioural evolution. They are able to identify and improve research methods, techniques and tools, as well as draw constructive conclusions based on the results of their research work.	P8S_UW	seminar	oral examination,
P8S_UW2	Based on available interdisciplinary scientific publications, they are able to recognise and solve a research problem that can be used to create a new element of their academic output.	P8S_UW	seminar	oral examination,
P8S_UW3	Can use their interdisciplinary knowledge and research experience to analyse and evaluate scientific achievements, expert opinions and other studies, formulating opinions on this basis, including critical judgements.	P8S_UW	seminar	oral examination,
P8S_UK6	He is able to carry out and present scientific work and to actively participate in the national and international scientific and professional community, communicating in a foreign language at the B2 level of the Common European Framework of Reference for Languages (CEFR).	P8S_UK	seminar	oral examination,
Social competence (no.)	***Ready to***			
P8S_KK3	He is ready to exchange ideas, conduct substantive scientific discussions, and solve cognitive and practical problems using his knowledge in the field of biological sciences.	P8S_KK	seminar	oral examination,
LEARNING FORMAT – NUMBER OF HOURS				

Semester (no.)	Lectures	Seminars	Lab classes	Internships	others	ECTS
II	-	**15 hrs.**	-	-	-	**2**

METHODS OF INSTRUCTION

Seminar and discussion, with an introduction to the topic by the lecturer. The seminar includes elements of a multimedia presentation with video clips illustrating scientific experiments.

COURSE CONTENT

Seminar:

Topic 1 – The evolution of the brain in social vertebrates.

Topic 2 – Types of memory, attention and brain structure.

Topic 3 – The prefrontal cortex (PFC) and its influence on the regulation of emotions and social behaviour.

Topic 4 – Cognitive science and the social aspect of consciousness, attention and human interaction as exemplified by humans.

COURSE ASSESSMENT CRITERIA

Examination conditions:

- activity and regularity of the doctoral student's work;
- activity during classes
- conducting a guided discussion with the examiner during which the doctoral student:

1) falsifies the hypothesis presented by the examiner on the basis of scientific works known to him/her and examples discussed during classes;
2) designs a methodical solution to a scientific problem encountered during classes;
3) after presenting the doctoral student with a research experiment that is new to him/her (in the form of an excerpt from a scientific paper together with the methodology from the subject's area of specialisation), the doctoral student criticall evaluates the methodology and analyses potential external and internal factors that may influence the final result of the experiment;

Very good grade:

- very high activity and engagement during classes,
- visible ability to lead discussions and draw constructive conclusions,
- very high substantive value of discussions;
- attendance at least 4/5 of the total number of classes;
- active use of the recommended literature, expanded and deepened on one's own.

Good plus grade:

- high activity during classes;
- high substantive value of discussions;
- attendance at least 4/5 of the total number of classes;
- visible satisfactory ability to lead discussions and draw conclusions;
- active use of the recommended literature.

Good grade:

- satisfactory activity during classes;
- satisfactory substantive value of discussions;
- attendance at least 4/5 of the total number of classes;
- moderate ability to lead discussions and draw conclusions;

- satisfactory use of the recommended literature.

Pass with distinction:
- moderate level of activity during classes
- relatively poor substantive value of discussions and conclusions;
- attendance at least 3/5 of the total number of classes;
- moderate use of the recommended literature.

Satisfactory grade:
- low level of activity during classes
- poor substantive value of discussions and conclusions;
- attendance at least 3/5 of the total number of classes;
- poor discussion skills;
- sporadic use of the recommended literature.

Unsatisfactory grade:
- lack of activity during classes;
- unacceptable substantive value of discussions;
- lack of ability to lead discussions and draw conclusions;
- absence from more than 3/5 of the total number of classes;
- no use of the recommended literature.

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	**15**
Other contact hours involving the teacher (consultation hours, examinations)	**1**
Non-contact hours – student`s own work (preparation for classes or examinations, project, etc.)	**44**
Total number of hours	**60**
Total number of ECTS credits	**2 ECTS**

INSTRUCTIONAL MATERIALS

Compulsory literature:	Longstaff Alan, Neurobiologia. Krótkie Wykłady. PWN 2011 Gary G. Matthews. Neurobiologia. 2000. Od cząsteczek i komórek do układów. PZWL. Klawiter, Andrzej, red. 2009. *Formy aktywności umysłu. Ujęcia kognitywistyczne. Tom 2, Ewolucja i złożone struktury poznawcze.*Warszawa: Wydawnictwo Naukowe PWN. Tomasello, Michael, 2002. *Kulturowe źródła ludzkiego poznania*. Warszawa: PIW. Dukas, Reuven ed., 1998. *Cognitive Ecology. The Evolutionary Ecology of Information*.
Complementary literature:	*Processing and Decision Making*. Chicago: The University of Chicago Press Buss, David M. (2001) *Psychologia ewolucyjna.* Gdańsk: Gdańskie Wydawnictwo Psychologiczne.

**(1 ects credit correspondes to 25–30 hours of total workload of the doctoral student, needed to achieve the intended outcomes)*

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Date and signature of the subject instructor

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Approval of the Head of the Unit or an authorized person