University of Gdańsk

Subject card

Subject name and code	Basics of brain physiology, PG_00150559		
Field of study	Logopedics		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2024/2025
Education level		Subject group	Obligatory subject group in the field of study Subject group related to practical vocational preparation
Mode of study	full-time studies	Mode of delivery	at the university
Year of study	1	Language of instruction	Polish The course is conducted in a gamified system (the structure and actions are based on game mechanics, elements and plot), in which the student, by systematically performing various types of tasks and obtaining points as a result, makes progress in the game, which, in accordance with the given criteria, gives the possibility of obtaining a specific final grade (without having to participate in an exam or colloquium)
Semester of study	1	ECTS credits	1.0
Learning profile	practical	Assessment form	
Conducting unit	Pracownia Neurobiologii -> Katedra Fizjologii Zwierząt i Człowieka -> Faculty of Biology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr Wojciech Glac	
	Teachers	dr n. med. Seweryna Konieczna	

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	15.0	0.0	0.0	0.0	0.0	15

E-learning hours included: 0.0

Learning activity and number of study hours

Learning activity	Participation in didactic classes included in study plan	Participation in consultation hours	Self-study	SUM
Number of study hours	15	1.0	9.0	25

Subject objectives

Learning and understanding of the model of brain functioning combining perceptual, autonomic, emotional, cognitive and motor processes. Learning and understanding the basics of brain processes necessary for proper social functioning, including communication (verbal and non-verbal).

Learning outcomes

Course outcome	Subject outcome	Method of verification
[LOGJ5_W15] Knows at an in-depth level the terminology of the social sciences (pedagogy, psychology and special education) and medical sciences relevant to the field of speech therapy. He understands its origin and knows the principles of application within related scientific disciplines.	Knows basic terminology in the field of neuroscience, relevant for the logopedics.	[SW4] test/exam - oral or written [SW3] text preparation/written work
[LOGJ5_U06] He has in-depth skills in identifying biomedical and psychological conditions of language problems and dysphagia in the patient, can analyze and interpret information gathered from medical and psychological sources and, using medical terminology, explain complex speech therapy problems.	Is able to identify the biomedical basis of speech and language disorders and, using medical terminology, including neuroscience, is able to explain complex speech therapy problems.	[SU5] implementation of a problem task
[LOGJ5_U13] Recognizing the need to deepen knowledge of the structure and functioning of the human body (nervous system, hearing and speech organs), he is able to plan and implement his own learning in the social and medical sciences relevant to speech therapy.	Recognizing the need to deepen knowledge of the structure and functioning of the nervous system, he independently plans and implements his own learning in this area.	[SU5] implementation of a problem task
[LOGJ5_K06] Can independently and critically supplement knowledge and skills in medicine, social sciences and fields useful to speech therapists.	Is able to independently and critically complement knowledge and skills in the field of neuroscience useful from the point of view of a speech and language therapist.	[SK1] oral statement/conversation/ discussion [SK5] implementation of a problem task
[LOGJ5_W12] He knows and understands in depth the biomedical background of human development and communication skills, as well as their disorders, the structure and function of the human body, relevant to speech therapy and the changes in speech and language with age.	Has advanced knowledge of the biomedical basis of human development and communication skills, as well as structure and functions of the human brain, important from the point of view of logopedics.	[SW4] test/exam - oral or written [SW3] text preparation/written work

Subject contents

- general structure of the central nervous system and senses
- neural basis of perceptual, emotional and cognitive processes
- neurobiological model of brain functioning
- neural basis of speech recognition, processing and production
- neural basis of speech disorders

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
elaborations	51.0%	30.0%
problem-based task (case study)	51.0%	35.0%
quizzes	51.0%	30.0%
discussion	51.0%	5.0%

Recommended reading

Basic literature	Alan Longstaff. Krotkie wykłady. Neurobiologia. Wydawnictwo Naukowe PWN.
Supplementary literature	T. Brzozowski. Fizjologia człowieka. Konturek. Edra Urban & Partner. Bogdan Sadowski. Biologiczne mechanizmy zachowania sie ludzi i zwierzat. Wydawnictwo Naukowe PWN.
eResources addresses	Adresy na platformie eNauczanie:

Example issues/ example questions/ tasks being completed	Problem-based task: based on given description of a person, indicate and justify what are the possible neurobiological causes of his/her condition and indicate and justify what actions should be taken to eliminate the problemElaborations: develop a model of brain functioning - subsequent stages of brain information processingDiscussions: what knowledge in the field of neuroscience could be useful to improve the effectiveness of therapy for a [selected] speech disorderQuizzes: Indicate which structures (of the ones listed below) of the brain are involved in speech production.
Work placement	Not applicable

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