University of Gdańsk

Subject card

Subject name and code	Central Nervous System Physiology, PG_00152014		
Field of study	Fizjologia ośrodkowego układu nerwowego		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2025/2026
Education level	uniform Master's studies	Subject group	Obligatory subject group in the field of study
Mode of study	full-time studies	Mode of delivery	at the university
Year of study	2	Language of instruction	Polish
Semester of study	3	ECTS credits	2.0
Learning profile	academic	Assessment form	credit
Conducting unit	Laboratory of Neurobiology -> Department of Animal and Human Physiology -> Faculty of Biology -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	dr Beata Grembecka	
	Teachers	dr Beata Grembecka	

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	30.0	0.0	0.0	0.0	0.0	30

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	30	5.0	25.0	60

Subject objectives	to learn and understand the functions of the central nervous system, processes occurring in the central nervous system and central regulatory mechanisms of life processes

Learning outcomes

Course outcome	Subject outcome	Method of verification
[PSYCHJ5_U08] He/she is able to efficiently use selected theoretical approaches to analyse the undertaken practical activities.	student can efficiently use theoretical knowledge of the physiology of the central nervous system to analyze the practical actions taken	[SU1] wypowiedź ustna/rozmowa/ dyskusja [SU4] test/egzamin - ustny lub pisemny
[PSYCHJ5_W05] Has a structured and in-depth knowledge of the specialization of psychology, including terminology, theory, and methodology.	student is familiar with the development and current state of knowledge and the latest trends in the physiology of the central nervous system and indicates their relationship with other nature and medical disciplines	[SW4] test/egzamin - ustny lub pisemny
[PSYCHJ5_U05] He/she has in-depth skills to present his/her own ideas, doubts, and suggestions, to support them with extensive argumentation in the context of selected theoretical perspectives, views of various authors, while being guided by ethical principles.	student synthesizes data from various sources and draws conclusions on this basis about the role of the central nervous system in the functioning of the body as a whole, both in the norm and in pathology, critically analyzes information disseminated in the media and functioning in society on the basis of mental and neurological disorders	[SU3] opracowanie tekstowe/ praca pisemna
[PSYCHJ5_W08] He/she has in-depth and expanded knowledge of the psychological foundations of human functioning.	student has an in-depth knowledge of the physiological basis of organismal functioning and presents the structure of the central nervous system and functional relationships occurring in the central nervous system and between the nervous system and other systems at the cellular, tissue, organ and organismal level	[SW4] test/egzamin - ustny lub pisemny [SW1] wypowiedź ustna/rozmowa/ dyskusja
[PSYCHJ5_K07] He/she is sensitive to social and psychological problems, he/she is ready to communicate and cooperate with the environment, including people who are not specialists in a given field, and to actively participate in groups and organizations implementing psychological activities.	student is sensitive to the problems of people with dysfunction of the central nervous system and ready to communicate and cooperate with organizations implementing psychological activities	[SK1] wypowiedź ustna/rozmowa/ dyskusja [SK8] obserwacja samodzielnej lub zespołowej pracy studenta
[PSCYHJ5_U16] He/she is able to undertake diagnostic, preventive, nursing, therapeutic and educational activities corresponding to the needs of the individual and social group appropriate for the studied field of study.	student is able to undertake diagnostic, prophylactic, nursing, therapeutic and educational activities that meet the needs of people with dysfunction of the central nervous system,	[SU1] wypowiedź ustna/rozmowa/ dyskusja [SU8] obserwacja samodzielnej lub zespołowej pracy studenta
[PSYCHJ5_K01] He/she has deeper awareness of the level of his/her knowledge and skills, he/she understands the need for continuous personal and professional development.	student knows the limitations of his/her own knowledge and understands the need for continuous learning and development, and is open to new ideas to expand his/her knowledge of the physiology of the central nervous system in normal and pathology	[SK4] test/egzamin - ustny lub pisemny
[PSYCHJ5_W11] He/she has organized knowledge of ethical principles and norms and professional ethics; he/she knows the legal, organizational, and ethical conditions of the performed professional activity.	student shows respect for patients affected by central nervous system dysfunction	[SW1] wypowiedź ustna/rozmowa/ dyskusja
[PSYCHJ5_W04] He/she has an in-depth and structured knowledge of the subject, methodological and statistical specificity of psychology (he/she knows the main strategies and methods of applied research in social sciences and humanities; he/she knows the map of positions and methodological approaches, he/she knows the basic methods of statistical analyses to conduct research in psychology).	student understands the course of basic physiological processes occurring in the central nervous system and their relationship with the adaptation of the body to changing environmental conditions, knows the symptoms, causes and background of mental and neurological disorders	[SW4] test/egzamin - ustny lub pisemny

<table>
<tr><td>Subject contents</td><td colspan="3">physiology of movement and sensation, reflex, levels of sensorimotor integration, mechanism of posture and movement regulation; the participation of the spinal cord and various areas of the brain in the formation of basic forms of behavior; activity of the cerebral cortex; sleep-wake mechanisms; speech; reflex-conditioned activities; learning and memory; somatic and vegetative components of various forms of animal behavior; central adaptive responses and stress; autonomous system; disorders of the functioning of the central nervous system</td></tr>
<tr><td>Prerequisites and co-requisites</td><td colspan="3">Basic knowledge about the structure and functioning of the central nervous system</td></tr>
<tr><td>Assessment methods and criteria</td><td colspan="3"><table><tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr><tr><td>final test</td><td>51.0%</td><td>100.0%</td></tr></table></td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td colspan="2">1. Lewandowska D. Orzeł-Gryglewska J., Jurkowlaniec E. Animal and human physiology. UG publishing, Gdansk, 2019.

2. Konturek S. Animal physiology V. IV Neurophysiology. UJ Publishing, Krakow, 1995.

3. O'Connor T.M., Halloran D.J., Shanahan F. The stress response and the hypothalamic-pituitary-adrenal axis: from molecule to melancholia. QJMed. 2000, 93, 323-333.</td></tr>
<tr><td>Supplementary literature</td><td colspan="2">Ganong W.F., Physiology. Medical Publishing PZWL, Warsaw, 2007</td></tr>
<tr><td>eResources addresses</td><td colspan="2"></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="3">1. Central regulation of food intake

2.Neurobiological basis of defensive behavior</td></tr>
<tr><td>Work placement</td><td colspan="3">Not applicable</td></tr>
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