

General Information	Subject name, code and number of credits	Physiology of higher nervous activity and sensory systems, PSYC417, 3 KU (6 AKTS)	
	Department	Psychology	
	Program (Bachelor, Master)	Bachelor	
	Academic semester	Fall 2023	
	Teacher(s) teaching the subject	Kamala Aghayeva	
	Email:	kaghayevawall@gmail.com	
	Phone:		
	Lecture Room/Table		
	Counseling hours	30 minutes after classes	
Prerequisites	PSYCH 312		
Language of instruction	English		
Type of subject (compulsory, optional)	Compulsory		
Textbooks and additional literature	<p>Main textbook:</p> <ul style="list-style-type: none"> ➤ Patoloji Fiziologiya, Y.C.Məmmədov; C.H.Təqdisi; F.İ.İslamzadə (2004) ➤ Textbook of Medical Physiology, Arthur C. Guyton, John E. Hall (2006) ➤ Supporting literature: ➤ İnsan antomiyası 2-ci cild V.B.Şadlinski, Ş.İ.Qasımov, N.T.Mövsümov (2013) ➤ Sinir Sistemi Xəstəlikləri R.K.Şirəliyeva (2003) ➤ Research and articles related to the topics; Tests; Forms 		
Course website	Identifying the working groups and presenting the research and innovations to the group by distributing the topics.		
Teaching methods	Lecture	+	
	Group discussion	+	
	Practical tasks	+	
	Analysis of a practical issue		
	other		
Evaluation	Components	Date/deadline	Percentage (%)
	Midterm exam	8th week	30
	Activity	During the semester	10
	Tasks and tests	15th week	10
	Presentation/Group discussion	Weeks 3-14	10
	Final exam	End of semester	40
	Conclusion		100
Activity	Come prepared to classes, be active during class, ask questions about the topic		

	<p>in discussions and make logical comments on the topic. It is important to respect the opinions of other group members, not to interrupt, listen carefully, ask questions and make comments.</p>
Evaluation criteria of the presentation	<p>Presentations should be 12-15 minutes long. Information delivery, presentation content, presentation organization, audience engagement, and enthusiasm will be evaluated during the presentation.</p>
Course description	<p>Theoretical mastery of the structure of higher nervous activity, the physiology of the sensory system, their functions, the mechanisms of conditioned and unconditioned reflexes, sleep, memory, and pain.</p>
Course objectives	<p>Understanding the role of higher nervous activity in human daily life, emotions and activities, higher nervous activity and the sensory system understanding the important role of physiology in human psychology.</p>
Course outcomes (learning).	<p>Demonstrate a profound knowledge of the anatomy and physiology of the higher nervous system, including the structure and function of the brain, spinal cord, and associated neural networks.</p> <p>Achieve a high level of proficiency in understanding the sensory systems, encompassing vision, audition, olfaction, gustation, and somatosensation, and their intricate connections within the nervous system.</p> <p>Apply theoretical knowledge to analyze and comprehend the role of higher nervous activity in mental health, emphasizing the connections between neural processes and psychological states.</p> <p>Develop the ability to assess and diagnose mental health conditions such as neurasthenia, phobias, bulimia, anorexia, and suicidal tendencies by employing a comprehensive understanding of higher nervous system functions.</p> <p>Cultivate analytical skills to identify and evaluate the underlying physiological factors contributing to mental disorders, linking observed symptoms to disturbances in higher nervous system activity.</p> <p>Apply acquired knowledge in real-world scenarios to assess and understand the etiology of mental health disorders, enabling effective intervention and treatment strategies.</p> <p>Develop the ability to communicate complex concepts related to higher nervous system activity and its role in mental health in a clear and concise manner, fostering effective collaboration with interdisciplinary teams.</p> <p>Demonstrate an understanding of ethical principles in the assessment and diagnosis of mental health disorders, ensuring respectful and responsible application of knowledge in clinical settings.</p> <p>Cultivate a mindset of continual learning and adaptability, staying abreast of advancements in neuroscience and related fields to enhance diagnostic and</p>

	<p>therapeutic approaches in the evolving landscape of mental health.</p> <p>Explore and integrate holistic approaches to mental health, recognizing the interconnectedness of biological, psychological, and social factors in the manifestation and treatment of mental disorders.</p>
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Regulations (Teaching Policy and Conduct)	The active participation of students will be carried out by the method of inquiry and questioning, so that they can evaluate themselves and gain awareness by taking into account each new information in order to teach the topics and master what they have learned.
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Table (subject to change)

Week	History (planned)	Topics of the subject	Tutorial/Assignments
1.	21/09/2023	The functional unit of the nervous system is the neuron. Neuronal mechanisms of information processing in the sensory system	Textbook of Medical Physiology, Arthur C. Guyton, John E. Hall 2006 chapter 45
2.	28/09/2023	Limbic system and its functions	Change Your Brain, Change Your Life (Revised and Expanded): The Breakthrough Program for Conquering Anxiety, Depression, Obsessiveness, Lack of Focus, Anger, and Memory Problems, by Daniel G. Amen MD 2015
3.	05/10/2023	Basal ganglia and its functions	Change Your Brain, Change Your Life (Revised and Expanded): The Breakthrough Program for Conquering Anxiety, Depression, Obsessiveness, Lack of Focus, Anger, and Memory Problems, by Daniel G. Amen MD 2015
4.	12/10/2023	Pain, headache	Textbook of Medical Physiology, Arthur C. Guyton, John E. Hall 2006 598
5.	19/10/2023	Prefrontal cortex and its functions 1	Change Your Brain, Change Your Life (Revised and Expanded): The Breakthrough Program for Conquering Anxiety, Depression, Obsessiveness, Lack of Focus, Anger, and Memory Problems, by Daniel G. Amen MD 2015
6.	26/10/2023	Prefrontal cortex and its functions 2	Change Your Brain, Change Your Life (Revised and Expanded): The Breakthrough Program for

			Conquering Anxiety, Depression, Obsessiveness, Lack of Focus, Anger, and Memory Problems, by Daniel G. Amen MD 2015
7.	02/11/2023	Higher nervous activity and its types. Conditioned and unconditioned reflexes. First signal system.	Normal physiology AMMammadov; KVSudakov 2011 page 272
8.	09/11/2023	Holiday	
9.	16/11/2023	Higher nervous activity disorders and their experimental models: Neuroses	Patoloji Fiziologiya, Y.C.Məmmədov; C.H.Təqdisi; F.İ.İslamzadə (2004) pp. 640-649
10.	23/11/2023	Motivations I	Textbook of Medical Physiology, Arthur C. Guyton, John E. Hall 2006 chapter 58
11.	30/11/2023	Motivations II	Textbook of Medical Physiology, Arthur C. Guyton, John E. Hall 2006 chapter 58
12.	07/12/2023	Memory	Textbook of Medical Physiology, Arthur C. Guyton, John E. Hall 2006 chapter 45
13.	14/12/2023	Emotion	Textbook of Medical Physiology, Arthur C. Guyton, John E. Hall 2006
14.	21/12/2023	Amygdala and its functions	Textbook of Medical Physiology, Arthur C. Guyton, John E. Hall 2006
15.	28/12/2023	Presentations. Questions and Answers	
16.		Final exam	