Subject Details	Subject Title, code and credit hours	PSYC 312 Anatomy and physiology of the central nervous system 6 ECTS	
	Departament	Psychology	
	Program (bachelor's and master's degree)	Bachelor's	
	Associated Term	Spring 2024	
	Instructor	Aygun Isgandarova	
	E-mail:	isgandarovaaygun@gmail.com	
	Telephone:	-	
	Lecture room/Schedule	Neftchilar campus	
	Consultations	After the classes- 30 minute	
Prerequisites	-		
Teaching language	English		
Subject type (mandatory/elective)	Mandatory		
Readings	➢ Anatomy of the Central Nervous System Textbook for students studying psychology /Dr. Olga V.Grigoryeva ,2014.64 pages. ➢ Fundamental neuroscience third edition Larry Squire（VA Medical Center San Diego, California University of California, San Diego, La Jolla, California) Darwin Berg (University of California, San Diego La Jolla, California), Floyd Bloom (The Scripps Research Institute La Jolla, California), Sascha du Lac (The Salk Institute La Jolla, California), Anirvan Ghosh (University of California, San Diego La Jolla, California), Nicholas Spitzer (University of California, San Diego La Jolla, California 2008, 581-609 pages ➢ Anatomy& Physiology.Multi-part Textbook Equity edition retains original academic content as published by Openstax College,and under the terms of their Creative Commons license(CC-BY)2013		
Teaching methods	Lecture	+	
	Group discussions	+	
	Activities	+	
	Analysis of activities	+	
	Other	+	
Assessment and Grading	Components	Deadlines	Percentage (%)
	Mid Term exam	Week 8	30
	Being active member of learning community	During semester	10
	Assignment and Test	Week 15	10
	Presentation/Group discussion	Weeks 5-14	10
Course outline	The course begins with an introduction to medical terminology and basic anatomical and physiological concepts. The course further treats the systematic and		

	topographic organisation of the nervous system. Explain how neurological disturbances and illnesses can influence sensory, motor, cognitive functions.
Course objectives	Understanding how the central nervous system is organised and its cellular structure, function. Can describe the functions of the sensory and motor parts of the nervous system.
Learning outcomes	This course provides students with an understanding of the functional role of the nervous system in providing for the integration of the cells, tissues and organs of the body, and its relationship to the clinical science of chiropractic. Students will be able to: • Identify the major components of the central nervous system distinguishing grey matter from white matter. Understand the basic neural embryological development and neuro histology. • Distinguish between the different meningeal layers and major cranial blood vessels. Understand the blood supply of the brain and the formation and absorption of CSF. • Identify the external and internal structure of telencephalon and diencephalon. Understand the function of the cortex, basal ganglia, thalamus, hypothalamus and pituitary gland. • Describe the connections between the cerebellum and other regions of the CNS and outline the functional relationships. • Describe the organization of the spinal grey matter and white matter and explain the major tracts. • Identify the external and internal structure of the brain stem. Understand the function of each division of the brainstem and each cranial nerve. • Summarize what structures are innervated by each nerve, identifying motor, sensory and parasympathetic innervations. • Define the major clinical manifestations of each cranial nerve injury. • Describe the different lobes of the cerebrum, sulci and gyri on the different surfaces of the cerebral hemisphere.
Marking criteria	Participation To be prepared to classes, be active during class, ask questions about the topic in discussions and make logical comments according to the topic. At this time, it is important to respect the opinions of other group members, not to divide their words, listen carefully, ask questions and make comments. Organization The project is appropriate for the topic and audience. The information is presented in a logical sequence. References are included Content Introduction is attention-getting, lays out the problem very well, and establishes a framework for the rest of the presentation. Project contains accurate information. Material included is relevant to the overall purpose of the presentation. There is an obvious conclusion summarizing the research.

Classroom Behavior	We want to build a classroom climate that is safe for all. It is important that we 1) display respect for all members of the classroom – including the instructor and students; 2) pay attention to and participate in all class sessions and activities; 3) avoid unnecessary disruption during class time (e.g. having private conversations, reading the newspaper, surfing the Internet, doing work for other classes, making/receiving phone calls, text messaging, etc.); and 4) avoid racist, sexist, homophobic, or other negative language that may unnecessarily exclude members of our campus and classroom. This is not an exhaustive list of behaviors; rather, it represents examples of the types of things that can have a dramatic impact on the class environment.

Week	Topics	Readings/Assignments due
1.	Anatomy of the brain	MayfieldClinic.com
2.	Anatomy of the Central Nervous System(CNS)	2006 Pearson Education, Inc., publishing as Benjamin Cummings
3.	Function of the Central Nervous System(CNS)	Anatomy& Physiology.Multi-part Textbook Equity edition retains original academic content as published by Openstax College,and under the terms of their Creative Commons license(CC-BY)2013
4.	Somatosensory System	Fundamental neuroscience third edition Larry Squire（VA Medical Center San Diego, California University of California, San Diego, La Jolla, California) Darwin Berg (University of California, San Diego La Jolla, California),Floyd Bloom (The Scripps Research Institute La Jolla, California),Sascha du Lac (The Salk Institute La Jolla, California), Anirvan Ghosh (University of California, San Diego La Jolla, California), Nicholas Spitzer (University of California, San Diego La Jolla, California 2008, 581-609 pages
5.	Audition.Presentation	Fundamental neuroscience third editionLarry Squire（VA Medical Center San Diego, California University of California, San Diego, La Jolla, California) Darwin Berg (University of California, San Diego La Jolla, California),Floyd Bloom (The Scripps Research Institute La Jolla, California),Sascha du Lac (The Salk Institute La Jolla, California), Anirvan Ghosh (University of California, San Diego La Jolla, California), Nicholas Spitzer (University of California, San Diego La Jolla,

		California 2008, 609—637 pages
6.	Vision	Fundamental neuroscience third edition Larry Squire（VA Medical Center San Diego, California University of California, San Diego, La Jolla, California) Darwin Berg (University of California, San Diego La Jolla, California),Floyd Bloom (The Scripps Research Institute La Jolla, California),Sascha du Lac (The Salk Institute La Jolla, California), Anirvan Ghosh (University of California, San Diego La Jolla, California), Nicholas Spitzer (University of California, San Diego La Jolla, California 2008, 637-663 pages
7.	Organization of spinal cord, spinal nerves and spinal reflexes	Kandel ER. Principles of Neural Science. 5th ed. 2013 Waxman S. Clinical Neuroanatomy. 27th ed. 2013
8.	Midterm exam	
9.	Fundamentals of Motor Systems, Cerebellum	Fundamental neuroscience third edition Larry Squire（VA Medical Center San Diego, California University of California, San Diego, La Jolla, California) Darwin Berg (University of California, San Diego La Jolla, California),Floyd Bloom (The Scripps Research Institute La Jolla, California),Sascha du Lac (The Salk Institute La Jolla, California), Anirvan Ghosh (University of California, San Diego La Jolla, California), Nicholas Spitzer (University of California, San Diego La Jolla, California2008, 663-677 pages, 751-775 pages
10.	The Hypothalamus: An Overview of Regulatory Systems	Fundamental neuroscience third edition Larry Squire（VA Medical Center San Diego, California University of California, San Diego, La Jolla, California) Darwin Berg (Diego La Jolla, California2008, 795-807 pages
11.	Sleep, Dreaming, and Wakefulness	Fundamental neuroscience third edition Larry Squire（VA Medical Center San Diego, California University of California, San Diego, La Jolla, California) Darwin Berg (University of California, 2008, 959-987 pages
12.	Epilepsy-Seizure	
13.	Stroke: Ischemic and Hemorrhagic	The Stroke Recovery Book *.A Guide for Patients and Families* Second Edition. Kip Burkman, M.D. 2011

14.	Types and Levels of Brain Injury	National Institute of Neurological Disorders and Stroke. Traumatic brain injury: hope through research. Bethesda (MD): National Institutes of Health; 2002 Feb. NIH Publication No.: 02-158
15.	Parkinson's Disease	Recovery from Parkinson's,Dr.Janice Walton-Hadloc,Daom 2013.
16.	Final exam	