

Course title	Cognitive and Behavioral Neuroscience				
Course code	PSY1205				
Course type	Compulsory				
Level	Undergraduate				
Year / Semester	Year 2 / Semester 2				
Teacher's name	Kyriaki Mikellidou				
ECTS	7.5	Lectures / week	1	Laboratories / week	0
Course purpose and objectives	<p>The course objective is to give students a basic understanding of the key ideas, theories, and techniques in cognitive neuroscience and behavioral neuroscience. With the goal of illuminating how neurological processes contribute to diverse cognitive functions and behaviors displayed by humans and other animals, this course attempts to study the complex link between brain function and behavior. Students should be able to critically assess research in the field and have a thorough understanding of the ideas underlying cognitive and behavioral neuroscience at the end of the course.</p>				
Learning outcomes	<p>The following learning outcomes are expected, where students will:</p> <ol style="list-style-type: none"> 1. Establish a solid foundational understanding of the main terms, ideas, and theories in cognitive and behavioral neuroscience. 2. Describe the brain mechanisms that underpin cognitive abilities and activities, including memory, perception, and emotion. 3. Analyze the neural processes underlying learning and memory. 4. Interpret research methodologies in cognitive and behavioral neuroscience. 5. Develop a comprehensive understanding of the connections between brain function and behavior. 				
Prerequisites	PSY205	Required	No		
Course content	<p>The course objective is to give students a basic understanding of the key ideas, theories, and techniques in cognitive neuroscience and behavioral neuroscience. With the goal of illuminating how neurological processes contribute to diverse cognitive functions and behaviors displayed by humans and other animals, this course attempts to study the complex link between brain function and behavior. Students should be able to critically</p>				

	<p>assess research in the field and have a thorough understanding of the ideas underlying cognitive and behavioral neuroscience at the end of the course.</p> <p>Week 1: Introduction to Neuroscience and Brain Structure</p> <p>Week 2: Neurophysiology and Neural Communication</p> <p>Week 3: Sensory and Motor Systems</p> <p>Week 4: Learning and Memory</p> <p>Week 5: Emotion, Motivation, and Decision-Making</p> <p>Week 6: Attention and Perception</p> <p>Week 7: Language and Communication</p> <p>Week 8: Cognitive Control and Executive Functions</p> <p>Week 9: Neurological and Psychiatric Disorders</p> <p>Week 10: Research Methods in Neuroscience</p> <p>Week 11: Ethical Considerations in Neuroscience</p> <p>Week 11: Current Trends and Future Directions</p> <p>Week 12: Case Studies and Applications</p>
Teaching methodology	Lecture
Bibliography	<p>The latest peer-reviewed journal articles, reviews, and reputable online resources will be distributed by the lecturer throughout the course.</p> <p>Bear, M. F., Connors, B. W., & Paradiso, M. A. (2020). Neuroscience: Exploring the Brain, Enhanced Edition (4th ed.). Jones & Bartlett Learning.</p>
Assessment	<ol style="list-style-type: none"> 1. Midterm & Final Exam (30% & 30%): Mid-term and final exams will be conducted covering the entire course. Both exams will include multiple-choice, short-answer, and essay questions. 2. Group assignment and presentation (20%): Assign group projects that involve analyzing real-life case studies related to neurological disorders or cognitive phenomena. 3. Individual assignments (10%): (i) Assigning problem-solving tasks that require applying neuroscientific principles to hypothetical scenarios can assess critical thinking and application skills. 4. Presence & Participation (10%): Students should be present and actively participate in in-class discussions.
Language	Greek