

<b>Course title</b>	Current Topics in Brain and Behavior				
<b>Course code</b>	PSY13##				
<b>Course type</b>	Lecture				
<b>Level</b>	Undergraduate				
<b>Year / Semester</b>	Year 3				
<b>Teacher's name</b>	STF				
<b>ECTS</b>	7.5	<b>Lectures / week</b>	1	<b>Laboratories / week</b>	0
<b>Course purpose and objectives</b>	<p>An in-depth examination of the nexus between neuroscience and psychology is what this course is all about. This course explores the most recent findings and developments in brain science as they apply to human behavior in an effort to close the knowledge gap between theory and practice. Students will gain a greater grasp of the neural foundations of psychological processes through engaging with cutting-edge issues, preparing them for further study or jobs in psychology, neuroscience, research, or related professions.</p>				
<b>Learning outcomes</b>	<p>The following learning outcomes are expected, where students will:</p> <ol style="list-style-type: none"> <li>1. Have a thorough understanding of the most recent ideas, concepts, and empirical discoveries in neuroscience, as well as how they relate to psychological processes.</li> <li>2. Be able to analyze and evaluate scientific publications, experimental plans, and research methods in the fields of neurobiology and psychology; and will recognize the advantages, disadvantages, and potential biases in studies on the relationship between the brain and behavior.</li> <li>3. Be able to explain numerous psychological processes, such as learning, memory, motivation, emotion, and decision-making, using neuroscientific concepts.</li> <li>4. Be able to integrate knowledge from several fields, such as biology, cognitive science, and psychology, to provide a comprehensive understanding of the connections between the brain and behavior.</li> <li>5. Recognize and talk about the moral issues involved in using humans as study subjects, as well as the potential societal effects of advances in neuroscience.</li> <li>6. Utilize presentations and written assignments to clearly explain intricate neuroscientific topics and their ramifications to both specialist and non-specialized audiences.</li> <li>7. Participate in peer reviews, group discussions, and collaborative projects to sharpen your critical thinking and teamwork abilities.</li> </ol>				

	<ol style="list-style-type: none"> <li>8. Develop original theories and offer other explanations for brain-behavior phenomena, displaying an aptitude for creative scientific thinking.</li> <li>9. Create testable hypotheses and research questions that examine the relationships between brain processes and behavioral consequences.</li> <li>10. Demonstrate an understanding of the dynamic nature of research, keep up to date with new developments, disputes, and trends in the field of neuroscience.</li> <li>11. Gain the fundamental understanding and abilities required for pursuing advanced courses in psychology, neuroscience, research, or related subjects.</li> <li>12. Use newly learned knowledge to make judgments regarding therapies or to comprehend the neurological underpinnings of psychological problems.</li> <li>13. Apply critical thinking to assess and resolve issues relating to the brain and behavior while taking into account multiple viewpoints and data.</li> <li>14. Investigate potential career options that call for knowledge of the brain foundation of behavior, such as those in psychology, neuroscience, research, or related professions.</li> </ol>		
<b>Prerequisites</b>	No	<b>Required</b>	No
<b>Course content</b>	<p>An in-depth examination of the nexus between neuroscience and psychology is what this course is all about. This course explores the most recent findings and developments in brain science as they apply to human behavior in an effort to close the knowledge gap between theory and practice. Students will gain a greater grasp of the neural foundations of psychological processes through engaging with cutting-edge issues, preparing them for further study or jobs in psychology, neuroscience, research, or related professions.</p> <p>Week 1: Introduction to Neuroscience and Psychology Integration  Week 2: Neural Basis of Cognitive Processes  Week 3: Emotion, Motivation, and Reward  Week 4: Brain Development and Plasticity  Week 5: Neurobiology of Psychopathology  Week 6: Cognitive and Clinical Neuroscience Techniques  Week 7: Neural Basis of Personality and Individual Differences  Week 8: Future Directions and Emerging Trends  Week 9 – Week 13: Student Research Projects and Presentations</p>		
<b>Teaching methodology</b>	Lecture		

<b>Bibliography</b>	The latest peer-reviewed journal articles, reviews, and reputable online resources will be distributed by the lecturer throughout the course.
<b>Assessment</b>	<ol style="list-style-type: none"> <li>1. Midterm &amp; Final Exam (30% &amp; 30%): Mid-term and final exams will be conducted covering the entire course. Both exams will include multiple-choice, short-answer, and essay questions.</li> <li>2. Group assignment and presentation (20%): Assign group projects that involve in-depth research on a particular brain-behavior relationship, requiring students to work together to analyze, synthesize, and present their findings.</li> <li>3. Individual assignments (10%): (i) Assign research papers that require students to critically analyze recent research papers, evaluate methodology, results, and implications for psychology (5%). (ii) Scenarios of ethical dilemmas related to neuroscientific research or interventions, requiring students to analyze the situation and propose ethical solutions (5%).</li> <li>4. Presence &amp; Participation (10%): Students should be present and actively participate in in-class discussions.</li> </ol>
<b>Language</b>	Greek