

<b>COURSE INFORMATION FORM</b>	
<b>Faculty / Institute</b>	Faculty of Science and Literature
<b>Department</b>	Psychology
<b>Course Code</b>	PSİ 429
<b>Course title</b>	Neurobiology of Behavior
<b>Instructional Language</b>	English
<b>Programs that can take the course</b>	Psychology
<b>Course Type</b>	Elective
<b>Course Level</b>	Undergraduate
<b>ECTS Credit</b>	6
<b>Prerequisites</b>	PSİ 103 – Introduction to Psychology I
<b>Course Content</b>	This course covers the neurogenetic and neuromodulatory processes that affect behavioral and cognitive variability during neurodevelopment and adulthood, emphasizing an evolutionary perspective.
<b>The Aim of the Course</b>	The aim of this course is to introduce students to the basic concepts of neurobiology. Students learn about the brain and its functions, the functions of the nervous system, the structures and functions of neurons.
<b>Course Outcomes</b>	At the end of this course, students will have information about the historical development and theoretical background of the field of neurobiology. Students learn about the brain and its functions, the functions of the nervous system, the structures and functions of neurons.
<b>Textbook and / or References</b>	Alon, U. (2006). <i>An introduction to systems biology: design principles of biological circuits</i> . Chapman and Hall/CRC. Katz, P. (Ed.) (1999). <i>Beyond neurotransmission</i> . New York: Oxford University Press. Kaczmarek, L. K., & Levitan, I. B. (1987). <i>Neuromodulation: The Biochemical Control of Neuronal Excitability</i> . Oxford University Press, USA. Harris-Warrick, R. M., Marder, E., Selverston, A. I., Moulins, M., Sejnowski, T. J., & Poggio, T. A. (Eds.). (1992). <i>Dynamic biological networks: the stomatogastric nervous system</i> . MIT press.

<b>Evaluation Criteria</b>	<b>Percentage</b>
<b>Attendance</b>	-
<b>Lab</b>	-

<b>Application</b>	-
<b>Field Study</b>	-
<b>Homework</b>	-
<b>Presentations</b>	15%
<b>Projects</b>	-
<b>Seminar</b>	-
<b>Midterm Exams</b>	50% (2 Midterms)
<b>Quiz</b>	-
<b>Final</b>	35%
<b>Total</b>	100%

<b>Course Plan</b>	<b>Subjects to Be Discussed</b>
<b>1. Week</b>	Polygenic traits, the normal distribution. Heritability.
<b>2. Week</b>	Mendel's laws. Epistasis. Pleiotropy. Linkage disequilibrium.
<b>3. Week</b>	Genes. Alleles, SNPs. Association. Linkage. Gene regulation. Epigenetics.
<b>4. Week</b>	Endophenotypes.
<b>5. Week</b>	Transdiagnostic phenotypes.
<b>6. Week</b>	Translational neuroscience
<b>7. Week</b>	Neuromodulation
<b>8. Week</b>	Neuromodulation
<b>9. Week</b>	Neuromodulation
<b>10. Week</b>	Neuromodulation
<b>11. Week</b>	Evolution of agency. Animal personality and behavioral syndromes
<b>12. Week</b>	Behavioral states as models of affect and emotion. Affective neuroscience.