

PHYSIOLOGICAL PSYCHOLOGY I: BASIC PRINCIPLES AND SENSORY SYSTEMS

1. GENERAL

SCHOOL	SOCIAL SCIENCES		
DEPARTMENT	PSYCHOLOGY		
LEVEL	Undergraduate		
COURSE CODE	Ψ-2401	SEMESTER	3 rd
COURSE TITLE	PHYSIOLOGICAL PSYCHOLOGY I: BASIC PRINCIPLES AND SENSORY SYSTEMS		
COURSE INSTRUCTOR	George Panagis Professor of Biopsychology		
TEACHING ACTIVITIES	WEEKLY HOURS	ECTS	
Lectures	3	6	
COURSE TYPE	Special Background (Compulsory)		
PREREQUISITES COURSES:	Introduction to Neurobiology - Genetics		
INSTRUCTION/EXAM LANGUAGE:	Greek		
OFFERED TO ERASMUS STUDENTS	YES (Independent study of English literature under the guidance of the instructor and exams in English)		
COURSE WEB PAGE (URL)	https://elearn.uoc.gr/course/view.php?id=73		

2. LEARNING OUTCOMES

Learning Outcomes
<p>The aim of this course is to introduce students to issues related to the biological bases of behavior. The course aims to help students understand how the nervous system affects human behavior and to what extent the malfunction of the above system plays a role in the manifestation of mental or other behavioral disorders. The themes that will be examined and evaluated are derived from the broader scientific field of neuroscience and reflect the advancement that has been noted in recent years in our knowledge of brain function and the way it affects behavior.</p> <p>Upon completion of the course, students will understand:</p> <ul style="list-style-type: none"> • the basic principles that determine how the nervous system works • how psychotropic drugs affect the nervous system and behavior • the importance of underlying biological processes in shaping behavior • the methodological approaches applied in biopsychology • how sensory systems function • how neuronal activity is related to sensation and perception, as well as in disturbances
General Competencies
<ul style="list-style-type: none"> • Search for, analysis and synthesis of data and information, with the use of the necessary technology • Working independently

- Respect for differences
- Criticism and self-criticism (free of reductions and simplistic approaches).
- Production of free, creative and inductive thinking
- Working in an interdisciplinary environment

3. COURSE CONTENT

- Biopsychology as a scientific discipline of Psychology
- The historical development of Biopsychology
- Neuron: The basic unit of communication in the central nervous system
- Membrane potentials
- Physiology and pharmacology of neural communication
- An introduction to psychopharmacology
- Research methods in Biopsychology
- Fundamental principles of the organization and function of sensory systems
- Vision and the visual system
- Audition and the acoustic system
- The vestibular system – The sense of balance
- The chemical senses: Gustation and olfaction
- Somesthesia and Pain

4. INSTRUCTIONAL AND LEARNING METHODS - EVALUATION

INSTRUCTION METHOD	In class (face-to-face).		
INFORMATION AND COMMUNICATION TECHNOLOGIES USED	Use of ICT in teaching Support for learning through the E-learn online platform		
TEACHING ORGANIZATION	Activity	Semester Workload	ECTS credits
	Lectures	39	1,56
	Independent study for the 1st progress test	18	0,72
	Independent study for the 2nd progress test	18	0,72
	Participation in progress tests	0,5	0,02
	Independent Study	75	3
	Participation in final exams	2	0,08
	Course Total	152,5	6,1
STUDENT EVALUATION	The evaluation is in Greek for the students of UoC and in English for the Erasmus students.		

	<p>Evaluation will be based on:</p> <ol style="list-style-type: none">I. 2 short progress tests (20%) andII. a written exam at the end of the semester (80%). <p>Evaluation criteria are presented during the 1st lecture of the semester. Moreover, all criteria are available to the students via the UoC e-learn platform.</p>
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5. BIBLIOGRAPHY

<ul style="list-style-type: none">• Breedlove, M., Rosenzweig, M.R., & Watson, N.V. (2011). <i>Biological Psychology</i>. Athens: Parisianou Scientific Publications (Greek edition).• Kandel, E.R., Schwartz, J.H., Jessell, T.M. (1999). <i>Essentials of Neural Science and Behavior</i>. Heraklion: Crete University Publications. (Greek edition).• Kolb, B. & Whishaw, I. Q. (2009). <i>Brain & Behavior</i> (Vol. I&II). Athens: Paschalides Medical Publications (Greek edition).• Pinel, J.P.J. (2011). <i>Biopsychology</i> (7th Ed.). Athens: Ion Publications (Greek edition).• Purves, D., Augustine, G. J., Fitzpatrick, D., Hall, W.C., LaMantia, A.-S., O. McNamara, J. O., Williams, S. M. (2008). <i>Neuroscience</i>. Athens: Parisianou Publications (Greek edition).• Toates, F. (2007). <i>Biological Psychology</i> (2nd ed.). Harlow, England: Pearson/ Prentice Hall.• Widmaier, E., Raff, H., & Strang, K. (2016). <i>Vander's Human Physiology: The mechanism of body function</i>. Athens: Paschalides Medical Publications (Greek edition).
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