Biological Psychology Lecture

Course Description

Aim of the course

Aim of the course: The course aims to summarize the neuroanatomical and (psycho)physiological knowledge that is necessary to develop a biologically founded approach to pychology.

Learning outcome, competences

knowledge:

- The student knows the theories presented in the introductory courses (Biological foundations of psychology)
- Possesses appropriate knowledge to understand and analyse the major research questions of psychology

attitude:

- The student is sensitive to and interested in the understanding of psychological phenomena and problems
- Accepts the biological background of psychological phenomena and processes
- attempts to integrate his or her biological and psychological knowledge

skills:

- The student is able to explain the biological background of psychological phenomena
- Able to recognize causal relationships, to think in a logical way, and to present summarizing reviews
- Able to perceive human behavior in a differentiated way and efficiently identify situations
- Able to follow and understand the psychological literature

Content of the course

Topics of the course

- General structure of the nervous system; neurons, synapses, neural transmission
- Evolution, heredity, and brain; neural plasticity
- Macroanatomy of the nervous system
- Sensory systems (vision, hearing, smell, taste, somatosensory system)
- The motor system
- The neuroendocrine system
- The vegetative nervous system and the homeostatic regulation
- The psychophysiology of pain
- The psychophysiology of emotions and stress
- Wakefulness, sleep, and biological rhythms
- The psychophysiology of the reproductive system
- The cardiovascular and the respiratory system
- Neural bases of cognition (learning, memory, intelligence, decision making)
- Biological background of certain psychopathologies

Learning activities, learning methods

Evaluation of outcomes

Learning requirements, mode of evaluation, criteria of evaluation:

requirements

- Evaluation: exam mark (1-5)

Reading list

Compulsory reading list

- Kalat, J.W. (2018): Biological psychology, 13th edition. Wadsworth Publishing, Belmont. ISBN: 9781337408202
- Czigler B., Márkus A., (2019): Neurológia pszichológia szakos hallgatók számára. Bővített, átdolgozott kiadás. Akadémiai Kiadó Zrt, Budapest. ISBN: 9789634540779

Recommended reading list

- Sapolsky, R. (2017): Behave: The Biology of Humans at Our Best and Worst. Penguin Press, London. ISBN: 1594205078