

# Physiological Psychology

## Brief description of course content (According to the programme's verification report)

Concept and techniques used in Physiological Psychology. Sensory-perceptual and motor processes. Psychobiology of motivation. Learning and memory. Psychobiology of the cortical systems.

## Learning outcomes

- To conceptually define and demarcate Physiological Psychology, its historical background and method of study in the field of Psychology and Neuroscience.
- To understand the neurobiological basis of the sensory-perceptual and motor processes in motivated behaviour, learning and memory and the higher mental processes.
- To understand the main explanatory neurobiological models and theories in these behavioural processes.
- To understand the terminology and the most important concepts of this discipline in the context of the Health Sciences.

## Planned learning activities

### Theory Syllabus

- Topic 1: Concept and techniques in Physiological Psychology.
- Topic 2: Pain as a somatosensory process.
- Topic 3: Sensory-perceptual processes: vision and hearing.
- Topic 4: Neurobiological bases of motor behaviour.
- Topic 5: The Psychobiology of motivation: nutrition and hydromineral regulation.
- Topic 6: Sleep/ wake processes.
- Topic 7: Psychobiology of learning and memory.

### Practical Syllabus

The practical exercises will develop the contents of the theoretical topics explained in class, with the aim of facilitating their understanding. In order to do so, individual and group exercises will be completed on typical instruments of the discipline; models will be used to understand systems and mechanisms; some theoretical and experimental aspects of the discipline developed by relevant researchers in the field will be presented graphically and in documents; information search exercises and data collection on websites related to the subject and revision topics will be proposed for individual work and presentation (under teacher tutoring), which must then be presented in class. The assessment of practical exercises is explained later on, in the "Assessment" section.

Contents structured in topics:

- Topic 1: Introduction to stereotactic surgery and stereotactic atlases. Practical exercises.

- Topic 1: Anatomic location of lesions with a microscope in Physiological Psychology experiments.
- Topic 1: Managing databases on Physiological Psychology.
- Topics 2 and 3: Practical study on the main sensory-perceptual systems.
- Topics 2 and 3: Use of models, sensorial/ psychophysical discrimination, etc.
- Topics 1-7: Watching videos.
- Topics 1-7: Self-study activities: individual completion and presentation to the class on specific topics proposed and tutored by the teacher.