



## NEUROPHYSIOLOGY

<b>Enrollment year</b>	2022/2023
<b>Academic year</b>	2022/2023
<b>Regulations</b>	DM270
<b>Academic discipline</b>	BIO/09 (PHYSIOLOGY)
<b>Department</b>	DEPARTMENT OF BRAIN AND BEHAVIORAL SCIENCES
<b>Course</b>	PSYCHOLOGY, NEUROSCIENCE AND HUMAN SCIENCES
<b>Curriculum</b>	PERCORSO COMUNE
<b>Year of study</b>	1°
<b>Period</b>	1st semester (03/10/2022 - 21/12/2022)
<b>ECTS</b>	6
<b>Lesson hours</b>	36 lesson hours
<b>Language</b>	English
<b>Activity type</b>	WRITTEN AND ORAL TEST
<b>Teacher</b>	MAPELLI LISA (titolare) - 6 ECTS
<b>Prerequisites</b>	General knowledge of cellular biology and physiology, gross anatomy of the central nervous system.
<b>Learning outcomes</b>	Students will learn how the nervous system works, how neuronal excitability and connectivity explain emerging functions, and they will be able to understand the basis of higher cognitive functions and dysfunctions. Students will learn how to approach neurophysiological research.
<b>Course contents</b>	A general outline of the course is:  <ul style="list-style-type: none"><li>- Introduction and history of neuroscience</li><li>- Cellular neurophysiology (including glia, neurons, membrane potentials, ion fluxes, membrane excitability, action potentials, synaptic transmission,</li></ul>

neurotransmitter,  
neuromodulators)  
- Anatomy of the nervous system  
- Sensory and motor systems  
- Autonomous systems  
- Neuromodulatory systems  
- Motivation  
- Emotion  
- Brain rhythms (including sleep and wakefulness)  
- Consciousness  
- Mental illness  
- Learning and memory

**Teaching methods**

Lectures

**Reccomended or required readings**

Neuroscience: Exploring the Brain  
Bear, Connors, Paradiso  
Fourth ed  
Wolters Kluwer

Supplementary materials will be provided during the course.

**Assessment methods**

Written and oral exam

**Further information**

In the download area of the website <https://psychology.unipv.it/> , the slides and materials used during the course will be made available

**Sustainable development goals - Agenda 2030**

[\\$lbl\\_legenda\\_sviluppo\\_sostenibile](#)