

AA 2025-26

Molecular Neurophysiology, 9 CFU, Teams code: 8zuw71e

Moodle password: PzNMJ2025

Synaptic transmission in CNS

Marina Sciancalepore (2 CFU)

Signal transduction

Paola Lorenzon (3 CFU)

Synaptic integration and neuronal circuits

Giada Cellot (2 CFU)

Synaptic transmission in PNS

Annalisa Bernareggi (2 CFU)

Tutorial Andrew Constanti

A preliminary course of 8h will be dedicated to reviewing notions of
Cellular Physiology of excitable cells

- Electrical membrane properties
- Voltage-gated Na⁺ channels
- Transmitters and receptors

Synaptic transmission in CNS

- Electrophysiological properties of excitable cells
 - Ion channels and firing properties
 - Chemical & electrical synapses
 - Central synapses

Suggested readings

Chapters of excellent texts:

- Principles of neuronal science, **Kandel**.
Cap. *Cell and Molecular Biology of the Neuron*

- Ion Channels of Excitable Membranes, **Hille**, Cap. 1- 5, III Ed.

- Fundamental Neuroscience. Squire et al., Cap. 6-9, 11, 37, III Ed.

- ppt files and selected papers in Moodle 2
- recorded lectures (available offline on Teams platform)

Lectures and tutorial activities.

Examination

Written test (multiple-choice) on topics covered during the course.

The test consists of 30 questions.

The time limit for writing the test is 35 minutes.

The written test is passed if the total is $\geq 18/30$.

Facebook private group, students since 2004

Int. Master in Neuroscience UniTS

Administrator : Marina Sciancalepore

