



APPLIED PHYSIOLOGY	
Enrollment year	2020/2021
Academic year	2020/2021
Regulations	DM270
Academic discipline	BIO/09 (PHYSIOLOGY)
Department	DEPARTMENT OF ELECTRICAL, COMPUTER AND BIOMEDICAL ENGINEERING
Course	BIOENGINEERING
Curriculum	Sensoristica e strumentazione biomedica
Year of study	1°
Period	(28/09/2020 - 22/01/2021)
ECTS	3
Lesson hours	23 lesson hours
Language	Italian
Activity type	WRITTEN AND ORAL TEST
Teacher	MOCCIA FRANCESCO (titolare) - 3 ECTS
Prerequisites	An adequate knowledge of general physiology, biochemistry, physics and mathematics is required.
Learning outcomes	The course aims at providing deeper insights into the role of ion channels in sensory physiology and at describing the possible therapeutic applications of ion channel physiology: e.g. optogenetics and optoceutics.
Course contents	Membrane physiology: signal transduction and ion channels. Optogenetics. Sensory physiology and TRP channels. Functional applications of TRP channels: optoceutics. Ca ²⁺ signaling and functional applications of Ca ²⁺ signaling in cell physiology.
Teaching methods	Frontal lectures.

**Reccomended or required
readings**

Fisiologia e Biofisica delle Cellule - Taglietti e Casella, plus material provided by the teacher.

Oral examination.

No more information.

