



MUSCLE PHYSIOLOGY	
Enrollment year	2020/2021
Academic year	2021/2022
Regulations	DM270
Academic discipline	BIO/09 (PHYSIOLOGY)
Department	DEPARTMENT OF INTERNAL MEDICINE AND THERAPEUTICS
Course	MEDICINE AND SURGERY
Curriculum	PERCORSO COMUNE
Year of study	2°
Period	1st semester (27/09/2021 - 14/01/2022)
ECTS	2
Lesson hours	16 lesson hours
Language	Italian
Activity type	WRITTEN AND ORAL TEST
Teacher	PELLEGRINO MARIA ANTONIETTA - 2 ECTS
Prerequisites	<p>The student is required to have good knowledge in:</p> <ul style="list-style-type: none">- mathematics, physics, chemistry and biochemistry- anatomy and histology <p>this at the level of the courses defined as preliminary to the exam of Human Physiology</p>
Learning outcomes	<p>The course of Human Physiology is finalized to provide the students with a deep knowledge of the main functions of the organs and apparata of the human body as well as their overall relationships in the life of the subject. At the end of the course, the student will be able to understand the functions of an healthy subjects so as to be ready to understand their pathologic alterations.</p>
Course contents	<p>Skeletal muscle: functional morphology, neuromuscular junction, excitation-contraction coupling. Electrical characteristics and ionic fluxes of muscle fibers; the motor unit; contractile event; parameters that</p>

	<p>regulate the development of force and speed of shortening in the muscle cell and in the whole muscle.</p> <p>Smooth muscle: functional morphology, electrical activity, excitation-contraction coupling; contractile event; development of force and shortening in the smooth muscle</p>
Teaching methods	<p>The course is organized in hall lessons carried out by PowerPoint presentations and, in addition, with blackboard-based explanations of specific topics. A 'problem solving' approach will be systematically used so as to stimulate active attendance by the students and to obtain a verified comprehension of the overall lessons.</p>
Reccomended or required readings	<ul style="list-style-type: none"> - Fisiologia - Berne e Levy (a cura: Koeppen e Stanton), Ed. Ambrosiana, VI edizione italiana (2010); - Fisiologia Medica - (a cura di F. Conti), Ed. Edi-Ermes, II edizione (2010) - Fisiologia Medica di Ganong (a cura di KE Barrett et al.), Ed. Piccin, XII edizione italiana (2011) - Fisiologia Medica - Guyton e Hall, Ed. Elsevier, XII edizione (2011)
Assessment methods	<p>The final exam will be oral, starting at 9.00 c/o Aula A Fisiologia Umana, Via Forlanini 6.</p>
Further information	
Sustainable development goals - Agenda 2030	<p>\$lbl legenda sviluppo sostenibile</p>