



SPORT PHYSIOLOGY	
Enrollment year	2020/2021
Academic year	2021/2022
Regulations	DM270
Academic discipline	BIO/09 (PHYSIOLOGY)
Department	DEPARTMENT OF PUBLIC HEALTH, NEUROSCIENCE, EXPERIMENTAL AND FORENSIC MEDICINE
Course	SPORT AND EXERCISE SCIENCES
Curriculum	PERCORSO COMUNE
Year of study	2°
Period	(01/03/2022 - 01/06/2022)
ECTS	6
Lesson hours	48 lesson hours
Language	Italian
Activity type	ORAL TEST
Teacher	CANEPARI MONICA (titolare) - 3 ECTS PELLEGRINO MARIA ANTONIETTA - 3 ECTS
Prerequisites	The student is required to have good knowledge in biochemistry and properties of excitable tissues. This at the level of the courses defined as preliminary to the exam of Sport Physiology
Learning outcomes	the aim of the first part of the course is to learn the structure and function of the cardio-circulatory and renal systems the objective of the second part of the course is the learning of the adaptations to the exercise of the cardiovascular, respiratory, muscular and endocrine
Course contents	CARDIOVASCULAR SYSTEM: Overview of the cardiovascular system: blood flow through the heart and vessels; Functional properties of heart tissue: excitability, contractility, rhythmicity, conductivity; Electrical

	<p>activity of the heart: conduction system, diffusion of excitation, ionic bases of electrical activity; The cardiac cycle: cardiac pump cycle, ventricular pressure and atrial pressure, aortic pressure, ventricular volume; Cardiac output and its control: innervation of the heart, effect of heart rate variations, effect of ventricular ejection volume variations; Systemic circulation: characteristics of the vessels, flow regulation</p> <p>KIDNEY SYSTEM: Functional anatomy of the urinary system; The processes leading to the formation of urine: filtration, reabsorption, secretion; Body water balance: counter-current mechanism, role of ADH; Acid-base balance</p>
Teaching methods	lectures
Reccomended or required readings	<p>PRINCIPI DI FISIOLOGIA, L. Zocchi, EdiSES</p> <p>FISIOLOGIA UMANA, Un approccio integrato; Silverthorn, Pearson</p> <p>FISIOLOGIA DELL'UOMO; Alloatti, edi-ERMES</p>
Assessment methods	written examination, multiple choice tests
Further information	
Sustainable development goals - Agenda 2030	\$lbl_legenda_sviluppo_sostenibile