UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Promozione della Salute, Materno-Infantile, di Medicina Interna e Specialistica di Eccellenza “G. D’Alessandro”
ACADEMIC YEAR	2022/2023
BACHELOR'S DEGREE (BSC)	HEALTHCARE ASSISTANCE
INTEGRATED COURSE	MORPHOLOGICAL AND PHYSIOLOGICAL SCIENCES - INTEGRATED COURSE
CODE	15870
MODULES	Yes
NUMBER OF MODULES	2
SCIENTIFIC SECTOR(S)	BIO/09, BIO/17
HEAD PROFESSOR(S)	LA ROCCA GIAMPIERO Professore Associato Univ. di PALERMO
OTHER PROFESSOR(S)	CASARRUBEA MAURIZIO Professore Associato Univ. di PALERMO LA ROCCA GIAMPIERO Professore Associato Univ. di PALERMO
CREDITS	6
PROPAEDEUTICAL SUBJECTS	
MUTUALIZATION	
YEAR	1
TERM (SEMESTER)	Annual
ATTENDANCE	Mandatory
EVALUATION	Out of 30
TEACHER OFFICE HOURS	**CASARRUBEA MAURIZIO** Thursday 10:30 12:30 Dipartimento di Biomedicina, Neuroscienze e Diagnostica Avanzata **LA ROCCA GIAMPIERO** Wednesday 11:00 12:30 Plesso di Anatomia e Istologia, Dipartimento BiND, Policlinico Universitario

DOCENTE: Prof. GIAMPIERO LA ROCCA

PREREQUISITES	Basic concepts about Chemistry, Biochemistry, Cell biology already acquired in previous carreer.
LEARNING OUTCOMES	Knowledge and ability to understand: he knows the anatomical structure and the main operating models of organs, has developed an integrated view of the main body areas which represent the target of environmental and occupational risk factors. The mode of knowledge occurs occur with an oral final exam. Capacity to apply knowledge and understanding and able to identify the problems related to the interaction between the morpho-physiological conditions of the organism, and the risk factors present in the general environment and in the workplace. The mode of knowledge occurs with an oral final exam. Making judgments Judgement and 'achieved through the completion of the evaluation questionnaires of the level of learning of the issues addressed in the program. Enable communication And able to demonstrate, in a clear, specific terminology through the acquired concepts, presenting the work carried out individually or in groups. Capacity Learning He has acquired the ability 'to supplement the human body morphology to the proper organ and tissue functioning, creating the basis for understanding the medical disciplines of the following years in the same CdS and to recognize the effects of risk factors present in the workplace .
ASSESSMENT METHODS	The candidate will have to answer at least two/three orally posed questions for each module that constitutes the integrated course, on all parties of the program, in compliance to the recommended texts. The final examination aims to evaluate whether the student has knowledge and understanding of the topics, has acquired the ability and independent judgment to interpret concrete cases. The sufficiency will be threshold when the student shows knowledge and understanding of the issues at least in broad outline, and has minimal application skills in order to solve concrete cases; It must also possess skill in exhibition and argumentative to allow the transmission of his knowledge to the examiner. Below this threshold, the examination will be insufficient. The more, however, the examinee with his ability 'argumentative and expository able to interact with the examiner, and the more his knowledge and ability applications go into detail of the discipline of verification, the more assessment will be positive . The assessment is carried out of thirty. In detail, the vote will be based on the following principles: Excellent (30-30 Honours) - Excellent knowledge of the topics, excellent properties of language, good capacity analytic, students and able to apply knowledge to solve problems proposed. Very Good (26-29) - Good knowledge of the topics, full ownership of the language, the student and able to apply knowledge to solve problems proposed. Good (24-25) - Basic knowledge of the main topics, discrete properties of language, with limited ability to independently apply the knowledge to the solution of the proposed problems. Satisfactory (21-23) - has not fully mastered the main teaching subjects but it has the knowledge, satisfactory property language, poor ability to independently apply the knowledge gained. Sufficient (18-20) - Minimum basic understanding of the main topics of teaching and technical languages, very little or no ability to independently apply the knowledge gained. Insufficient - It does not have an acceptable knowledge of the contents of the topics covered in the teaching.
TEACHING METHODS	Lectures on the topics listed in the program, including presentation of papers published in scientific journals and discussion.

MODULE
HISTOLOGY WITH ELEMENTS OF HUMAN ANATOMY

Prof. GIAMPIERO LA ROCCA

SUGGESTED BIBLIOGRAPHY	
AA.VV.: Istologia per le lauree triennali e magistrali, Idelson Gnocchi, 2018, ISBN: 9788879476782	
AMBIT	10358-Scienze biomediche
INDIVIDUAL STUDY (Hrs)	45
COURSE ACTIVITY (Hrs)	30
EDUCATIONAL OBJECTIVES OF THE MODULE	
Knowledge relative to the biaoarchitecture of the cell, and the organization of the four main tissues of the human body; knowledge of the main organ systems of the human body	

SYLLABUS

Hrs	Frontal teaching
3	General concepts on the cell and tissues, histological techniques, cellular bioarchitecture and stem cells
3	Ultrastructure and morphofunctional aspects of the cell, the membrane organelles, cytoskeleton, nucleus
3	The epithelial tissues, general features and the non-secretory epithelia
3	The secreting epithelial tissues and glandular epithelia: morph-functional characterization and classification
3	The connective tissues: generalities and features of the proper connective tissues, trophomechanic tissues and blood
3	The muscle tissues (sleletal, cardiac, smooth). Morphofunctional aspects
3	The nervous tissue: features and classification of neurons and glia
3	Generalities on the anatomic terminology, planes and axes as references in the human body. The cardiovascular system
3	Respiratory and excretory apparatus
3	Endocrine and tegumentary systems

MODULE
PHYSIOLOGY

Prof. MAURIZIO CASARRUBEA

SUGGESTED BIBLIOGRAPHY	
G.A. Thibodeau, K.T. Patton - Anatomia e Fisiologia - Casa editrice Ambrosiana D.U. Silverthorn: “Fisiologia Umana - Un approccio integrato” - Casa editrice Pearson L. Zocchi e altri: Principi di Fisiologia" - Casa editrice Edises	
AMBIT	10358-Scienze biomediche
INDIVIDUAL STUDY (Hrs)	45
COURSE ACTIVITY (Hrs)	30
EDUCATIONAL OBJECTIVES OF THE MODULE	
Aim of the course is to provide the basic knowledge of human physiology. A particular emphasis to the study of physiology on the basis of an integrative approach will be proposed.	

SYLLABUS

Hrs	Frontal teaching
12	NERVOUS SYSTEM: Bioelectric properties of the neuron and synaptic communication. General organization of the nervous system: central and autonomic nervous system. Somatic Sensation. Special senses: vision, hearing, vestibular system, gustatory and olfactory perception. Physiology of movement: control of movement, motor unit, reflexes.
6	CARDIOCIRCULATORY SYSTEM – Cardiac mechanic. Electrical activity of the heart. Cardiac output. Nervous control of heart. Properties and control of circulatory system.
6	RESPIRATORY SYSTEM: Respiratory mechanism. Gaseous exchanges. Gas transport in the blood. Regulation of breathing.
3	URINARY SYSTEM: electrolyte balance; water and main electrolytes. Functional anatomy of kidney. Glomerular filtration. Selective Re-Absorption and Tubular Secretion. Urine formation.
3	ENDOCRINE SYSTEM: Generalities concerning endocrine system and hormones.