



Syllabus Master's Degree Course in Medicine and Surgery

BODY ARCHITECTURE 2: ANATOMY AND NEUROANATOMY

First year, second semester (6 academic credits [CFU])

Teachers

Subject	Academic credits (CFU)	Lecturer
Anatomy and neuroanatomy	4	D'AGATA Velia (3 CFU) PAVONE Vito (1 CFU)

Learning outcomes

Subject	Learning outcomes
Anatomy and neuroanatomy	<p>By the end of the course, students are expected to:</p> <ul style="list-style-type: none">• describe the structures of the human body using the correct anatomical terminology.• Understand the organization of the tegumentary system.• Comprehend the organization of the musculoskeletal system.• Familiarize with the organization of the central and peripheral nervous system, nerve structure and course, organization of the main sensory and motor pathways, and sensory organs. <p>The course aims to provide a comprehensive understanding of the human body, spanning from microscopic cellular and histological foundations to macroscopic surface anatomy. Students will gain knowledge of the structural organization of the human body at various levels, enabling them to establish connections between anatomical structures and functions. This knowledge serves as a foundational basis for practical applications in related disciplines such as physiology, pathological anatomy, internal medicine, general surgery, pharmacology, and human movement theories.</p>

Prerequisites

Subject	Prerequisites
Anatomy and neuroanatomy	Attainment of the educational objectives set by prerequisite courses.

Course contents

Subject	Course contents
Anatomy and neuroanatomy	<p>General Anatomy</p> <ul style="list-style-type: none"> • Morphology of the human body • Systematic and Topographic Anatomy. • Clinical Anatomy terminology. • Functional and constituent bodies of the equipment and systems of the human body. • Cable organs and fill organs. • Topographical organization of the human body. <p>The Integument</p> <ul style="list-style-type: none"> • Structure of the skin and subcutaneous tissue (hair, nails, skin glands, mammary gland). <p>Locomotor system:</p> <ul style="list-style-type: none"> • General on the bones. • General and classification of joints. • Characteristics and classification of Sinartrosi and synovial joints. • Movement types of synovial joints. • General characteristics of skeletal muscles and the classification criteria. • Skull. • Cranium and splanchnocranium. • Surface front, side and back of the skull. • Inner and outer surface of the cranial vault. • Inner and outer surface of the skull base, with particular emphasis on nerve-holes. • Temporomandibular joint. • Muscles of the head: the masticatory muscles, hints on mimic muscles and their bands. • Hyoid bone. • Spine: structure of the vertebra type; regional characteristics of the vertebrae; spine as a whole and physiological curves. • Spinal joints. • Cranio-vertebral joints. • Muscles and fascia of the neck. • Rib Cage: ribs, sternum and joints. • Chest muscles: intrinsic muscles and thoracic appendage. • Back muscles: spinocerebellar appendicular, spinal-general on coastal and deep muscles of the back. • Pelvis: bones, joints, muscles and fascia of the wall of the abdomen and pelvis. • Upper limb: skeleton, joints and muscles. • Lower limb: skeleton, joints and muscles. <p>The Nervous System</p> <ul style="list-style-type: none"> • Organization of the nervous tissue. • Organization of the central and peripheral nervous system. • Organization and course of the spinal and cranial nerves. • Main sensory and motor pathways.

	<ul style="list-style-type: none"> • Organization of the autonomic nervous system (sympathetic division and parasympathetic division). • Structure of the sensory organs.
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Assessment methods

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Anatomy and neuroanatomy	<p>Throughout the semester, interim tests may be conducted to assess learning.</p> <p>The assessment commences with a single written exam comprising 60 multiple-choice questions. Correct answers yield 1 point, with no penalties for incorrect or unanswered questions. A passing score of 36 out of 60 is necessary. Successful candidates advance to a final oral examination graded on a thirty-point scale, with potential for honors. Students failing to meet the passing criteria for one or both modules must retake the entire exam in the subsequent session.</p> <p>The oral examination consists of an interview during which questions will cover at least three different topics from the course curriculum. The assessments aim to evaluate: i) the level of knowledge of the course modules; ii) the clarity of presentation; iii) the property of medical-scientific language. The assessment of learning can also be conducted remotely if the conditions necessitate it.</p> <p>For the assignment of the final grade, the following parameters will be considered:</p> <ul style="list-style-type: none"> • Score 29-30 with honors: The student demonstrates an in-depth knowledge of the topics, promptly and correctly integrates and critically analyzes presented situations, independently solving even highly complex problems. They possess excellent communication skills and command medical-scientific language proficiently. • Score 26-28: The student has a good understanding of the topics, is able to integrate and critically and logically analyze presented situations, can fairly independently solve complex problems, and presents topics clearly using appropriate medical-scientific language. • Score 22-25: The student has a fair understanding of the topics, although it may be limited to the main areas. They can integrate and critically analyze presented situations, although not always in a linear fashion, and present topics fairly clearly with moderate language proficiency. • Score 18-21: The student has minimal knowledge of the topics, possesses modest ability to integrate and critically analyze presented situations, and presents topics sufficiently clearly, although their language proficiency may be underdeveloped. <p>Exam not passed: The student lacks the minimum required knowledge of the core content of the course. Their ability to use specific language is minimal or nonexistent, and they are unable to independently apply acquired knowledge.</p>

Examples of common questions and/or exercises

Subject	Examples of common questions and/or exercises
Anatomy and neuroanatomy	<ul style="list-style-type: none">• Describe a joint.• Describe a muscle (origin, insertion, function, vascularization, innervation).• Describe a bone.• Describe the difference between a hollow organ and a solid organ.• Describe the organization of the central nervous system.• Describe the organization of the peripheral nervous system.• Describe the organization of spinal nerves.• Describe the organization of cranial nerves.

Reference texts

Subject	Textbooks
Anatomy and neuroanatomy	<ul style="list-style-type: none">• Human Anatomy. Authors: Anastasi et al. - Edi-Ermes• Gray's Anatomy for Students. Authors: Richard Drake A. Wayne Vogl Adam Mitchell - Elsevier.• Gray's Anatomy - The Anatomical Basis of Clinical Practice. Editor in Chief: Susan Standring - Elsevier.

Course format

Subject	Textbooks
Anatomy and neuroanatomy	The teaching will primarily be conducted through in-person lectures with a blend of theory and practical exercises. In the event that teaching is delivered in a blended or remote mode, necessary adjustments may be introduced compared to what has been previously stated, in order to adhere to the planned program as outlined in the Syllabus.

Attendance

Subject	Textbooks
Anatomy and neuroanatomy	Mandatory attendance.

Course schedule

Subject	Course schedule
Anatomy and neuroanatomy	General Anatomy - Chapter 1 of Human Anatomy. Authors: Anastasi et al.; Edi-Ermes <ul style="list-style-type: none">• Morphology of the human body• Systematic and Topographic Anatomy.• Clinical Anatomy terminology.• Functional and constituent bodies of the equipment and systems of the human body.• Cable organs and fill organs.• Topographical organization of the human body.

The Integument-Chapter 2 of Human Anatomy. Authors: Anastasi et al.; Edi-Ermes

- Structure of the skin and subcutaneous tissue (hair, nails, skin glands, mammary gland).

Locomotor system-Chapter 3 of Human Anatomy. Authors: Anastasi et al.; Edi-Ermes

- General on the bones.
- General and classification of joints.
- Characteristics and classification of Sinartrosi and synovial joints.
- Movement types of synovial joints.
- General characteristics of skeletal muscles and the classification criteria.
- Skull.
- Cranium and splanchnocranium.
- Surface front, side and back of the skull.
- Inner and outer surface of the cranial vault.
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- Temporomandibular joint.
- Muscles of the head: the masticatory muscles, hints on mimic muscles and their bands.
- Hyoid bone.
- Spine: structure of the vertebra type; regional characteristics of the vertebrae; spine as a whole, and physiological curves.
- Spinal joints.
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- Muscles and fascia of the neck.
- Rib Cage: ribs, sternum and joints.
- Chest muscles: intrinsic muscles and thoracic appendage.
- Back muscles: spinocerebellar appendicular, spinal-general on coastal and deep muscles of the back.
- Pelvis: bones, joints, muscles and fascia of the wall of the abdomen and pelvis.
- Upper limb: skeleton, joints and muscles.
- Lower limb: skeleton, joints and muscles.

The Nervous System-Chapters 13, 14 and 15 of Human Anatomy. Authors: Anastasi et al.; Edi-Ermes

- Organization of the nervous tissue
- Organization of the central and peripheral nervous system
- Organization and course of the spinal and cranial nerves
- Main sensory and motor pathways
- Organization of the autonomic nervous system (sympathetic division and parasympathetic division)
- Structure of the sensory organs