



Course Syllabus

Degree Programme in Medicine and Surgery *Academic Year 2026 / 2027*

INTEGRATED COURSE (I.C.): Human Anatomy I

NUMBER OF CFU (ECTS credits): 10

SSD (Academic Discipline Code): BIOS-12/A

COORDINATOR OF THE I.C.: Prof.ssa [Meringolo Maria](#)

E-MAIL: maria.meringolo@unicamillus.org

PROFESSOR: [Falvo Maria Elisabetta](#)

NUMBER OF CFU (ECTS credits): 2

e-mail: mariaelisabetta.falvo@unicamillus.org

PROFESSOR: [Galgani Alessandro](#)

NUMBER OF CFU: 4

e-mail: alessandro.galgani@unicamillus.org

PROFESSOR: [Meringolo Maria](#)

NUMBER OF CFU: 1

e-mail: maria.meringolo@unicamillus.org

PROFESSOR: [Ponterio Giulia](#)

NUMBER OF CFU: 2

e-mail: giulia.ponterio@unicamillus.org

PROFESSOR: [Rashid Anas](#)

NUMBER OF CFU: 1

e-mail: anas.rashid@unicamillus.org

PREREQUISITE COURSES

No prerequisite courses are required.

PREREQUISITES

As this is a first-year course, no specific prior knowledge or additional requirements are expected beyond those required for admission to the degree programme.

LEARNING OBJECTIVES

The course aims to provide students with an in-depth understanding of the structural organisation of the human body, with particular emphasis on the musculoskeletal system, the cardiovascular system, the lymphatic system, the peripheral nervous system, and the autonomic nervous system. The macroscopic and microscopic anatomical features of the structures comprising these systems will be examined, with a focus on their morphological and functional organisation, topographical relationships, blood supply, lymphatic drainage, and innervation. Particular emphasis will be placed on the study of osteoarticular and muscular structures; the heart and major blood vessels; lymphatic organs and vessels; cranial and spinal nerves; nerve plexuses; and the organisation of the autonomic nervous system. The study of regional anatomy and the relationships between different structures will aim to foster an understanding of the three-dimensional organisation of the human body and its functional and clinical implications. The course also aims to provide the anatomical knowledge required to understand physical examination and to establish a foundation for the subsequent study of physiology, pathology, and clinical disciplines.

EXPECTED LEARNING OUTCOMES

Upon completion of the course, students will be able to: 1) Describe the anatomical structures of the musculoskeletal system, cardiovascular system, lymphatic system, peripheral nervous system, and autonomic nervous system, using anatomical terminology and spatial and topographical references accurately. 2) Recognise and describe the macroscopic and microscopic organisation of the structures studied, understanding their essential morphological characteristics and their relationships with their respective functions. 3) Identify the main anatomical structures in the different regions of the body and describe their topographical relationships, with particular reference to osteoarticular, muscular, vascular, lymphatic, and nervous structures. 4) Describe the main blood and lymphatic vessels and the innervation pathways of the structures studied, understanding the organisation of the cranial and spinal nerves, nerve plexuses, and the sympathetic and parasympathetic divisions of the autonomic nervous system. 5) Apply anatomical knowledge to the understanding of basic clinical scenarios, relating the organisation of body structures to physical examination. 6) Integrate morphological knowledge with the fundamental functional principles of the systems and apparatuses covered in the course.

DD1: Knowledge and understanding

Upon completion of the course, students must demonstrate that they are able to: 1) Understand and correctly use anatomical terminology. 2) Understand the structures comprising the musculoskeletal system, cardiovascular system, lymphatic system, peripheral nervous system, and autonomic nervous system, with particular emphasis on the relationships between form and function. 3) Recognise the macroscopic and microscopic structural characteristics of the anatomical structures studied. 4) Describe the topographical relationships between different anatomical structures.

DD2: Applying knowledge and understanding

Upon completion of the course, students will be able to use the anatomical knowledge acquired to understand the functional aspects underlying human physiology and pathophysiology, with particular reference to the systems and apparatuses covered in the course, and to support the study of subsequent biomedical and clinical disciplines

DD3: Making judgements

Students will be able to identify the main anatomical structures and establish connections between anatomical features, functions, and possible clinical manifestations in relation to the systems and apparatuses studied.

DD4: Communication skills

Upon completion of the course, students will be able to use specific anatomical terminology to accurately describe the structures of the musculoskeletal system, cardiovascular system, lymphatic system, peripheral nervous system, and autonomic nervous system, thereby facilitating communication with fellow students and other healthcare professionals.

DD5: Learning skills

Upon completion of the course, students will have acquired an appropriate study method and the ability to independently deepen their anatomical knowledge by consulting relevant textbooks and bibliographic resources.

SYLLABUS

Introduction and General Concepts: Definition and use of anatomical terminology, including anatomical sections and terms of location and movement; anatomical position; anatomical planes and axes. Introduction to the musculoskeletal system and classification of bones, joints, and muscles

Head and Neck: Description of the general architecture of the skull, including the neurocranium and viscerocranium; identification and description of the location and main anatomical features of the bones of the neurocranium (frontal, temporal, parietal, occipital, sphenoid, and ethmoid bones) and viscerocranium (nasal, lacrimal, zygomatic, palatine, and maxillary bones, inferior nasal conchae, vomer, and mandible); description of the cranial sutures and cranial vault; description of the anterior, middle, and posterior cranial fossae and the temporal, infratemporal, and pterygopalatine fossae, including their communications; identification of the main internal and external foramina of the skull and the structures transmitted through them; identification and description of the main muscles of the face and scalp, including the muscles of facial expression; description of the orbital cavity, conjunctiva, lacrimal gland, and eyeball; identification and description of the intrinsic and extrinsic muscles of the eye; description of the bones of the nasal cavity, with particular emphasis on the main anatomical features of its lateral and medial walls; description of the paranasal sinuses, their relationships with the nasal cavity, and their drainage openings into the nasal cavity through its lateral wall; description of the temporomandibular joint and its movements, and identification of the muscles of mastication; description of the external ear (auricle and external acoustic meatus), middle ear (tympanic membrane, auditory ossicles, and pharyngotympanic tube), and inner ear (vestibular apparatus and cochlea); description of the oral cavity, oral vestibule, and oropharyngeal isthmus; description of the hard and soft palates; description of the tongue and its intrinsic and extrinsic muscles; identification and description of the major salivary glands (parotid, sublingual, and submandibular glands)

and minor salivary glands; description of the anatomy, functions, and muscles of the pharynx; identification and description of the anterior and posterior triangles of the neck; description of the hyoid bone, suprahyoid and infrahyoid muscles, sternocleidomastoid, scalene, and paravertebral muscles; description of the laryngeal cartilages and intrinsic and extrinsic muscles of the larynx. For all anatomical structures covered, description of the arterial and venous blood supply, lymphatic drainage, somatic and autonomic innervation, and main topographical relationships will also be included.

Thorax and Abdomen: Study of the regions and functions of the vertebral column; identification of the main anatomical features of typical and atypical vertebrae; distinguishing features of the atlas, axis, and other cervical, thoracic, lumbar, sacral, and coccygeal vertebrae; craniovertebral and intervertebral joints, vertebral ligaments, and movements of the vertebral column; main muscles and surface anatomy of the vertebral column; anatomical features and surface landmarks of the ribs and sternum; joints between the ribs, vertebrae, costal cartilages, and sternum; intercostal muscles; deep back muscles, accessory respiratory muscles, and joints of the thoracic cage; attachments and anatomical relationships of the diaphragm, including the structures passing through it; superior and inferior thoracic apertures; superior, middle, and inferior mediastinum and their contents; muscles of the anterior, lateral, and posterior abdominal walls; functional relationships between the abdominal muscles and the thoracic and pelvic diaphragms, including their roles in posture, ventilation, and the evacuation of thoracic, abdominal, and pelvic contents; inguinal ligament and inguinal canal.

Pelvis and Perineum: Identification and description of the skeletal and ligamentous components of the pelvis; description of the pelvic inlet and outlet and the physiological orientation of the pelvis; description of sex-related differences in pelvic skeletal anatomy; identification of palpable anatomical landmarks of the ilium, ischium, and pubis; description of the pelvic diaphragm and the urogenital and anal triangles. For all anatomical structures covered, the arterial and venous blood supply, lymphatic drainage, somatic and autonomic innervation, and main topographical relationships will also be addressed.

Shoulder Girdle and Upper Limb: Description of the main skeletal components, including the clavicle, scapula, humerus, radius, and ulna, and identification of their main anatomical landmarks; identification of the carpal bones and bones of the hand, including their relative positions; description of the anatomy of the pectoral girdle and its movements; description of the sternoclavicular, acromioclavicular, and scapulothoracic articulations; identification of the major muscles and muscle groups responsible for the movement and stability of these articulations; description of the glenohumeral joint and identification of the muscles contributing to its movement and stability; description of the bursae adjacent to the glenohumeral joint; description of the boundaries and contents of the axilla, including the major blood vessels and relevant parts of the brachial plexus; description of the anatomy of the elbow joint; identification of the muscles responsible for elbow flexion and extension, including their main attachment sites and innervation; description of the anatomy of the proximal and distal radioulnar joints; explanation of supination and pronation movements and identification of the muscles responsible for these movements, including their main attachment sites; description of the anatomy of the wrist; description and demonstration of wrist joint movements and identification of the muscle groups responsible for these movements; description of the relative positions of tendons, blood vessels, and nerves in the wrist region, including the carpal tunnel; description of the intrinsic muscles of the hand and the flexor and extensor retinacula; identification and demonstration of finger and thumb movements. For all anatomical structures covered, the arterial and venous blood supply, lymphatic drainage, somatic and autonomic innervation, and main topographical relationships will also be addressed.

Pelvic Girdle and Lower Limb: Description of the main anatomical features of the femur, tibia, fibula, ankle bones, and bones of the foot; identification of palpable anatomical landmarks of these bones; description of the anatomy of the gluteal region; description of the anatomy and movements of the hip joint; overview of the muscles responsible for these movements and their main attachment sites; description of the structures contributing to hip joint stability; description of the boundaries and contents of the femoral triangle; description of the anatomy and movements of the knee joint; identification of the muscles responsible for these movements and their main attachment sites; identification of the factors contributing to knee joint stability; description of the boundaries and contents of the adductor canal, adductor hiatus, and popliteal fossa; description of the structures adjacent to the knee joint, including the synovial bursae; description of the anatomy of the ankle and subtalar joints; explanation of plantar flexion, dorsiflexion, inversion, and eversion; identification of the muscles responsible for these movements and their attachment sites; description of the factors contributing to ankle joint stability; description of the intrinsic muscles of the foot, flexor and extensor retinacula, and plantar arches; description of the fascial compartments enclosing the main muscle groups. For all anatomical structures covered, the arterial and venous blood supply, lymphatic drainage, somatic and autonomic innervation, and main topographical relationships will also be addressed.

Cardiovascular System: Description of the pericardium; description of the heart, including its surfaces, position, chambers, conduction system, anatomical landmarks, and valves; description of the cardiac blood supply, including the coronary arteries, cardiac veins, coronary sinus, and coronary dominance; description of the course and main branches of the great vessels, including the ascending aorta, aortic arch and its branches, and thoracic and abdominal descending aorta; description of the superior and inferior venae cavae, brachiocephalic veins, and azygos venous system; description of the superficial and deep arterial and venous supply of the different regions of the human body; description of the vascular supply of the head and neck, including the course and main branches of the carotid arteries and jugular veins; description of the vascular supply of the thorax, abdomen, and pelvis; description of the vascular supply of the upper limb, including the course and main branches of the subclavian artery and vein; description of the vascular supply of the lower limb, including the course and main branches of the femoral artery and vein.

Lymphatic System: Description of the general organisation of lymphatic drainage; anatomy and drainage territories of the right lymphatic duct, cisterna chyli, and main lymphatic trunks and collecting vessels; description of the course and main anatomical relationships of the thoracic duct; identification and description of the main lymph node groups of the head and neck, thorax, abdomen, pelvis, and upper and lower limbs.

Peripheral Nervous System: Description of the origin of the cranial nerves and their points of exit through the cranial foramina; overview of the sensory and motor organisation of the cranial nerves; description of the main anatomical features of the course, innervation territories, and sensory and/or motor components of the olfactory, optic, oculomotor, trochlear, trigeminal, abducens, facial, vestibulocochlear, glossopharyngeal, vagus, accessory, and hypoglossal nerves. Description of spinal nerve formation and the course of their terminal and collateral branches; dorsal and ventral rami of the spinal nerves, intercostal nerves, dermatomes, and main sensory and motor territories; formation of the spinal nerve plexuses; description of the origin, composition, and topographical organisation of the cervical, brachial, lumbar, sacral, and coccygeal plexuses and their innervation territories; description of the main anatomical features of the course and innervation territories of the major nerves arising from these plexuses, including their collateral and terminal branches.

Autonomic Nervous System: Description of the general organisation of the autonomic nervous system; specific organisation of the parasympathetic division, including the parasympathetic nuclei of the brainstem, the sacral spinal cord, and the pelvic splanchnic nerves; description of the organisation of the sympathetic division, including the thoracolumbar spinal cord, sympathetic chain (paravertebral ganglia), visceral and splanchnic nerves, and autonomic plexuses.

COURSE STRUCTURE

The course consists of 100 hours of lectures and 2.5 hours of practical sessions per ECTS credit. During the practical sessions, students will have the opportunity to use anatomical models representing organs and organ systems. Lecture materials will be made available on the University's WebApp platform. Attendance is mandatory, with a minimum attendance requirement of 67%. Students whose attendance falls below 67% will not be admitted to the examinations and will be required to attend the course again.

COURSE GRADE DETERMINATION

Assessment will consist of a written examination and an oral examination. The written examination will comprise at least 40 multiple-choice questions, each with five answer options, and will last 40 minutes. Students who achieve a minimum score of 20 will be admitted to the oral examination.

The oral examination will assess students' ability to present and apply the knowledge acquired, identify and describe the anatomical structures covered in the syllabus, including through the use of images and flashcards, use anatomical terminology correctly, and describe the topographical relationships between different structures. Students' ability to explain the main morphological and functional features of the structures studied will also be assessed, with particular reference to the musculoskeletal system, cardiovascular system, lymphatic system, peripheral nervous system, and autonomic nervous system.

Fail	Significant gaps and/or inaccuracies in knowledge and understanding of the topics; limited analytical and synthesis skills; argumentation absent or frequently incorrect.
18–20	Barely sufficient knowledge and understanding of the topics, with possible imperfections; sufficient analytical, synthesis, and judgement skills.
21–23	Routine knowledge of the topics; correct analytical and synthesis skills with coherent logical argumentation.
24–26	Fair knowledge and understanding of the topics; good analytical and synthesis skills; rigorously expressed argumentation.
27–29	Complete knowledge of the topics; considerable analytical and synthesis skills; good independent judgement.
30–30L	Excellent level of knowledge and understanding. Considerable analytical, synthesis, and independent judgement skills. Original argumentation expressed with full command of specialized terminology.

OPTIONAL ACTIVITIES

Theoretical and practical sessions using the anatomical models available in the Anatomy Laboratory will facilitate students' understanding of the various anatomical structures. Teaching staff will provide ongoing support during and after lectures.

READING MATERIALS

- *Gray's Anatomy: Clinical Practice* (latest edition). Churchill Livingstone, Elsevier. Alternative to *Gray's Anatomy: Treatise on Human Anatomy* (3 volumes), G. Anastasi. Edi Ermes.
- *Gray's Clinical Neuroanatomy*, by Elliott L. Mancall and David G. Brock. Alternatively, for neuroanatomy: *Snell's Clinical Neuroanatomy*, 8th edition, by Ryan Splittgerber, PhD.
- *Atlas of Human Anatomy*, by Frank H. Netter (latest edition). Elsevier.