UNIVERSITÀ DI PAVIA

Anno Accademico 2021/2022

SPECIAL ANATOMY

Enrollment year	2021/2022
Academic year	2021/2022
Regulations	DM270
Academic discipline	BIO/16 (HUMAN ANATOMY)
Department	DEPARTMENT OF BRAIN AND BEHAVIORAL SCIENCES
Course	NEUROPHYSIOPATHOLOGY TECHNIQUES
Curriculum	PERCORSO COMUNE
Year of study	1°
Period	(01/03/2022 - 17/06/2022)
ECTS	2
Lesson hours	16 lesson hours
Language	Italian
Activity type	ORAL TEST
Teacher	POLIMENI MARIAROSA (titolare) - 2 ECTS
Prerequisites	Basic Human Anatomy
Learning outcomes	The module focuses on anatomical and functional aspects of the major central nervous system districts and sensory and motors functional systems. .
Course contents	Special Anatomy module program Anatomical and functional divisions of the nervous system. Nervous cells: morphofunctional features and localization. Embryology: brain and spinal cord development. Blood supply of brain and spinal cord. Meninges, brain ventricular system, choroid plexuses, cerebrospinal fluid, blood–brain barrier.

	Telencephalon: cerebral hemispheres, lobes, cerebral sulci and gyri, laminar and columnar cortex organization, cortical areas, basal ganglia, white matter organization. Diencephalon, brainstem, cerebellum, spinal cord and their internal divisions. Cranial and spinal nerves, peripheral ganglia. Receptor systems, sensory organs and sensory functional systems: spinobulbothalamic tract, spinothalamic tract, trigeminal system, spinocerebellar tract, medial lemniscus, visceral lemniscus; Auditory and vestibular system (vestibular and cochlear receptors, static and kinetic labyrinths, Auditory and vestibular tracts and cortex areas); Visual system (eye, control of the intrinsic and extrinsic musculature of the eye, retina organization and the visual pathways); Integration of the static and visual information; Gustative system; Olfactory system and limbic system. Reticular formation and nuclei of the brainstem. Peripheral effectors and motor systems: motor areas in cerebral corte,basal ganglia, cerebellum, brain stem nuclei, efferent motor component of cranial and spinal nerves; Corticospinal tract, Corticobulbar tracts, Rubrospinal, Reticulospinal, Lateral Vestibulospinal tract, Vestibular system, medial longitudinal fasciculus, Broca's Area and speech, frontal eye fields; Motion control: direct and indirect motor pathways, cognitive, oculomotor and limbic pathways; Autonomic nervous system. Reflexes. Higher Cortical Functions. Clinical neuroanatomy.
Teaching methods	Frontal lessons and peer education exercises on anatomical models with the help of dynamic 3D visual resource
Reccomended or required readings	- Neuroanatomia Clinica, S.G. Waxman, Piccin - Neuroanatomia con riferimenti funzionali clinici, M.J.Turlough FitzGerald et al., Elsevier - Sistema nervoso centrale, G.Grasso, Piccin - Atlante di neuroanatomia funzionale, W.J. Hendelman, Casa Editrice Ambrosiana
Assessment methods	Oral examination
Further information	-
Sustainable development	

goals - Agenda 2030	$lbl_legenda_sviluppo_sostenibile