

Analytical program
Histology
 ACADEMIC YEAR 2022-2023

Ist semester: Course (2h) + Practical assignments (3h) = 70 h

Course (content units)	hours
Tissue - definition, examples - Tissue differentiation and histocompatibility - Primary tissues	2
Epithelial Tissues - general characteristics of epitheliums, histogenesis, classification - microscopic structure - covering epithelium - glandular epithelium	6
Connective Tissues - histogenesis, microscopic organisation and fibrilogenesis - classification and histophysiology of the connective tissue - structural elements of the connective tissue - varieties of connective tissue	4
Blood and haematopoiesis - red blood cell, white blood cell, thrombocytes - haematopoiesis	4
Cartilaginous tissue; Bone (system and tissue) - histogenesis, microscopic organization, types of cartilaginous tissue - histogenesis, microscopic organization, types of bone tissue - joints, ossification	4
Muscle tissue - contraction system, energy production and the coupling of excitation-contraction - histogenesis and microscopic organization of the muscle - types of muscle (smooth muscle, striated skeletal muscle, striated cardiac muscle).	4
Nervous Tissue - histogenesis, the nervous cell, glial cell, the synapse - tissular bases of the organization of the peripheral nervous system	4
Practical work (topics / themes)	hours
Histological samples. Routine and special histological techniques	3
The use of microscope in histology. Types of microscopes.	3
The cell as a tissue component. Cell differentiation and apoptosis	3
Covering epithelial tissue	3
Glandular epithelial tissue	3
Connective tissue. Components	3
Types of connective tissue	3
Mucosae and serosae	3
The blood and blood cells	3
Blood smear technique. Leucocyte formula	3
Haematopoiesis	3
Bone tissue	3
Cartilaginous tissue (osteogenesis and joints)	3
Muscle tissues	3
Nerve tissues	3

IInd semester: Course (2h) + Practical assignments (3h) = 70 h

Course (content units)	hours
Nervous system - the organisation of the CNS: grey matter, white matter - blood brain barrier; meninges, choroid plexus. - cerebral and cerebellar cortices. - cellular bases of the relationship between nervous and endocrine system	2
Hematopoietic and lymphopoietic organs - structure and histophysiology of the bone marrow, lymph node, thymus, spleen, tonsil, Payer plates, cecum	2
Internal secreting glands - hypothalamus-hypophysis complex, epiphysis, thyroid gland, parathyroids, suprarenals, endocrine pancreas, diffuse endocrine system (structure, ultrastructure, histophysiology)	2
Cardiovascular system - histogenesis, structure and ultra-structure of the heart - blood vessels (arteries, veins, capillaries) and lymphatics	2
Urinary system - histogenesis, structure and ultra-structure of the kidney - histophysiology of the kidney - extra renal urinary pathways	2
Respiratory system - structure, ultra-structure and histophysiology of the respiratory tract - respiratory paths and the olfactive mucosa - histogenesis and particularities of the respiratory system in children	2
Digestive system - the mouth, tongue, taste buds, teeth, oesophagus. - stomach, small intestine, bowl, endocrine system of the digestive tract - salivary glands, exocrine pancreas. - the liver and biliary pathways: structure, ultrastructure and histophysiology	6
Genital system - histogenesis, tissue and cell organisation - male genital system: testicle, genital paths, annex glands, penis - female genital system: the ovary, salpinx, uterus, vagina, mammary gland, the placenta	6
Skin and its appendages - structure, ultra-structure and histophysiology - skin glands - the hair and nails - the skin as a sense organ	2
Sense organs - microscopic structure of the eye, cellular bases of photoreception - the ear: cellular structure of the hearing and equilibrium organ - the olfactive mucosa - the taste buds	2
Practical work (topics / themes)	hours
Nervous system	3
Cardiovascular system	3
Hemato and lymphopoietic organs	3
Endocrine glands	3
Urinary system	3
Respiratory system	3
Upper digestive tube	3
Lower digestive tube	3
Annex glands of the digestive tube	3
Male genital system	3
Female genital system. The ovary	3
Female genital system. The genital paths	3
The skin	3
Sense organs	3

REFERENCES

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