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|  | | | **UNIVERSITY OF EAST SARAJEVO**  **Faculty of Medicine Foča** | | | | | | | | | | | logo | |
| ***Study program: Nursing*** | | | | | | | | | | |
| First study cycle | | | | | | First study year | | | | |
| **Full subject title** | | | ANATOMY, HISTOLOGY AND EMBRYOLOGY | | | | | | | | | | | | |
| **Department** | | | Department for preclinical subjects, Faculty of Medicine in Foča | | | | | | | | | | | | |
| **Subject code** | | | | | | **Subject status** | | | | | **Semester** | | | **ECTS** | |
|
| NU-05-1-001-1 | | | | | | compulsory | | | | | I, II | | | 6 | |
| **Professor/ -s** | | Associate professor Adnan Mujezinović, Assistant professor Radmila Balaban-Đurević, Assistant profesor Miloš Gašić, Assistant profesor Marija Drakul | | | | | | | | | | | | | |
| **Associate/ -s** | | Senior assistant Vanja Pljevaljčić, assistant Tamara Šolaja | | | | | | | | | | | | | |
| **Number of lectures/ teaching workload (per**  **week)** | | | | | | | **Individual student workload (in hours per**  **semester)** | | | | | | | | **Coefficient of student**  **workload So1** | |
| **L** | **E** | | | | **SP** | | **L** | | | **E** | | **SP** | | | **So** |
| 3 | 2 | | | | 0 | | 63 | | | 42 | | 0 | | | 1,4 |
| total teaching workload (in hours, per semester)  45+30+0=75 | | | | | | | | total student workload (in hours, per semester)  63 + 42 +0=105 | | | | | | | |
| Total subject workload (teaching + student): 75+ 105 = 180 hours per semester | | | | | | | | | | | | | | | |
| **Learning outcomes** | | Mastering the subject, the student will be able to:   1. Gain knowledge of organ morphology as well as the systems of the human body. 2. Acquire knowledge and skills in anatomy. 3. Acquire knowledge and skills in histology. 4. Acquire knowledge and skills in embryology. | | | | | | | | | | | | | |
| **Preconditions** | | No preconditions | | | | | | | | | | | | | |
| **Teaching methods** | | Lectures, laboratory exercises, seminar papers | | | | | | | | | | | | | |
| **Subject content per week** | | | **Lectures:**   1. Bones of the upper and the lower limb. The chest skeleton: the chest as a whole and the vertebral   column as a whole   1. Blood vessels of the arm, nerves of the arm; topographic and functional anatomy of the upper   limbs, blood vessels; Nerves of the leg, Topographic and functional anatomy of the lower limbs   1. Thoracic cavity, lungs and pleura, heart and pericardium. 2. Digestive system (stomach, small and large intestines, liver and bile ducts, pancreas, spleen). 3. Pelvis (walls and contents, pelvic blood vessels and nerves), urinary bladder, rectum, and anal   canal. Male and female internal reproductive organs.   1. The bones of the neurocranium. The viscerocranium bones. Cranial nerves. Division of the   muscles of the head and neck, blood vessels of the head and neck. Cervical nerve plexus.  Oral cavity (walls and contents).   1. Nasal cavity and paranasal sinuses. Pharynx. Larynx. Sense of vision. Sense of hearing. 2. Medulla spinalis – morphology and structure. Truncus encephali – parts, morphology and structure. 3. Cerebellum. Mesencephalon (midbrain). Cerebrum (forebrain). Pathways of the CNS (Central   Nervous System).   1. **Histology and embryology**. Introduction to Histology, Histological Methods. Cell: cell membrane,   organelles, cytoskeleton, cellular deposits, nucleus, life cycle of the cell   1. Epithelial Tissue: covering epithelium, glandular epithelium, myoepithelium, neuroepithelium.   Connective Tissue: connective tissue cells, extracellular matrix (ECM), embryonic and adult  connective tissues (mesenchyme, mucous connective tissue, loose connective tissue, dense  connective tissue, adipose tissue, cartilage, bone). Blood. | | --- | | 1. Muscle tissue: smooth, skeletal, and cardiac. Nervous tissue: neuron, synapses, neuroglia. Nervous system: CNS (cerebrum, cerebellum, spinal cord) and PNS (peripheral nerve, nerve endings, ganglia). Cardiovascular system: heart and blood vessels (elastic arteries, muscular arteries, arterioles, capillaries, venules, veins). 2. Immune system: types of immunity, immune system cells, lymphatic organs (thymus, lymph node, spleen, tonsils). Endocrine system: hypothalamus, pituitary gland, pineal gland, thyroid gland, parathyroid glands, and adrenal glands. Respiratory system: nose, paranasal cavities, pharynx, larynx, trachea, lungs (bronchi, bronchioles, alveoli). 3. Digestive system: oral cavity, esophagus, stomach, small and large intestines, salivary glands, liver, and pancreas. 4. Urinary system: kidney (structure, nephron), urinary tract. Eye. Ear. Skin. 5. Male and female reproductive system: testis, male reproductive tract, prostate, ovary, fallopian tube, uterus, menstrual cycle, vagina. 6. Embryology: factors of development, fertilization, periods of development (preembryonic, embryonic, and fetal), derivatives of the germ layers, organogenesis.   **Exercises:**   1. Bones of the upper and the lower limb. The chest skeleton: the chest as a whole and the vertebral   column as a whole   1. Blood vessels of the arm, nerves of the arm; topographic and functional anatomy of the upper   limbs, blood vessels; Nerves of the leg, Topographic and functional anatomy of the lower limbs   1. Thoracic cavity, lungs and pleura, heart and pericardium. 2. Digestive system (stomach, small and large intestines, liver and bile ducts, pancreas, spleen). 3. Pelvis (walls and contents, pelvic blood vessels and nerves), urinary bladder, rectum, and anal   canal. Male and female internal reproductive organs.   1. The bones of the neurocranium. The viscerocranium bones. Cranial nerves. Division of the   muscles of the head and neck, blood vessels of the head and neck. Cervical nerve plexus.   1. Oral cavity (walls and contents). 2. Nasal cavity and paranasal sinuses. Pharynx. Larynx. Sense of vision. Sense of hearing. 3. Medulla spinalis – morphology and structure. Truncus encephali – parts, morphology and structure. 4. Cerebellum. Mesencephalon (midbrain). Cerebrum (forebrain). Pathways of the CNS (Central   Nervous System).   1. **Histology and embryology**. Cell shapes, nuclear shapes, simple squamous epithelium, pseudostratified columnar epithelium, non-keratinized stratified squamous epithelium, loose connective tissue, yellow adipose tissue, hyaline cartilage, bone tissue. 2. Peripheral blood smear, smooth muscle tissue, skeletal muscle tissue, cardiac muscle tissue. 3. Pyramidal neurons of the cerebral cortex, spinal cord (multipolar neurons), peripheral nerve, muscular-type artery, and vein. 4. Lymph node, palatine tonsil, pituitary gland, thyroid gland, adrenal gland. 5. Trachea, lungs, serous gland, tongue, stomach (cardia and body), duodenum. 6. Liver, pancreas, kidney, urinary bladder. 7. Cornea, skin, testis, ovary, uterus. | | | | | | | | | | | | | | |
| **Compulsory literature** | | | | | | | | | | | | | | | |
| **Author/s** | | | | **Publication title, Publisher** | | | | | | | | | **Year** | | **Pages (from-to)** |
|  | | | |  | | | | | | | | |  | |  |
| Wojciech Pawlina | | | | Histology: A Text and Atlas: With Correlated Cell and Molecular Biology | | | | | | | | | 2023. | |  |
| Win Kapit | | | | Anatomy Coloring Book, The 4th Edition | | | | | | | | | 2013. | |  |
| **Additional literature** | | | | | | | | | | | | | | | |
| **Author/s** | | | | **Publication title, Publisher** | | | | | | | | | **Year** | | **Pages (from-to)** |
|  | | | |  | | | | | | | | |  | |  |
| **Student obligations, types of student assessment and grading** | | **Grading policy** | | | | | | | | | | | **Points** | | **Percentage** | |
| Pre-exam activities | | | | | | | | | | | | | |
| lecture/exercise attendance | | | | | | | | | | | 20 | | 20% |
| seminar paper | | | | | | | | | | | 30 | | 30% |
| Final exam | | | | | | | | | | | | | |
| written | | | | | | | | | | | 50 | | 50% |
| TOTAL | | | | | | | | | | | 100 | | 100 % |
| **Certification date** | | December 2024. | | | | | | | | | | | | | |