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|  | | | **UNIVERSITY OF EAST SARAJEVO**  Faculty of Medicine | | | | | | | | | | | |  | | | |
| ***Study program:medicine*** | | | | | | | | | | | |
| Integrated academic studies | | | | | | I study year | | | | | |
| **Full subject title** | | | HISTOLOGY AND EMBRYOLOGY | | | | | | | | | | | | | | | |
| **Department** | | | Department for preclinical subjects, Faculty of Medicine in Foča | | | | | | | | | | | | | | | |
| **Subject code** | | | | | | **Subject status** | | | | | **Semester** | | | | **ECTS** | | | |
|
| ME-01-1-002-1; ME-01-1-002-2 | | | | | | compulsory | | | | | I,II | | | | 13 | | | |
| **Professor/ -s** | | associate. professor. Milica Labudovic, PhD | | | | | | | | | | | | | | | | |
| **Associate/ -s** | | senior assistant. Jelena Vladicic-Masic, MD; assistant. Snezana Zecevic, MD,assistant Ljiljana Kozić,MD | | | | | | | | | | | | | | | | |
| **Number of lectures/ teaching workload (per week)** | | | | | | | **Individual student workload (in hours per semester)** | | | | | | | | | **Coefficient of student workload So[[1]](#footnote-1)** | | |
| **L** | **E** | | | | **SP** | | **L** | | | **E** | | **SP** | | | | **So** | | |
| 3 | 3 | | | | 0 | | 3\*15\*1 | | | 3\*15\*1 | | 0\*15\*1 | | | | 1 | | |
| 3 | 4 | | | | 0 | | 3\*15\*1 | | | 4\*15\*1 | | 0\*15\*1 | | | | 1 | | |
| total teaching workload (in hours, per semester)    3\*15+3\*15+0\*15 =90  3\*15+4\*15+0\*15=105 | | | | | | | | total student workload (in hours, per semester)  3\*15\*1+3\*15\*1+0\*15\*1 = 90  3\*15\*1+4\*15\*1+0\*15\*1=105 | | | | | | | | | | |
| Total subject workload (teaching + student): 195 + 195 = 390 hours | | | | | | | | | | | | | | | | | | |
| **Learning outcomes** | | 1. knowledge of the normal structure of cells, tissues and organs in the light microscopy and at the level of electronic microscopy;  2. understanding of the correlation between the morphology and function of cells of tissues and organs;  3. The introduction of an embryological basic mechanisms of cellular differentiation, tissue development, organ and understanding of the mechanisms for the formation of the morphogenetic developmental anomalies;  4. mastering the technique of microscopy of histological preparations in order to study the normal tissue and organ structure;  5. obtaining information on the significance of particular histological structures for clinical practice | | | | | | | | | | | | | | | | |
| **Preconditions** | | No preconditions | | | | | | | | | | | | | | | | |
| **Teaching methods** | | Lectures, exercises, seminars, colloquium, consultations.... | | | | | | | | | | | | | | | | |
| **Subject content per week** | | **Lectures:**  1.Introductory class  2. Modification of the cell membrane  3. Nucleus  4. Epithelial tissue  5. Connective tissue  6. Classification of connective tissue  7. Cartilage  8. Blood  9. Muscular tissue  10. Nervous tissue  11. Nervous system.  12. Cardiovascular and lymphatic vascular system.  13. Immune system and lymphatic organs.  14. Endocrine system.  15. Respiratory system.  16. Digestive system  17 Gastrointestinal tract: general structure of the digestive tube  18. Liver  19. Urinary system.  20. The eye. Eye ball  21. The ear. External ear  22.The skin. Epidermis  23. Male reproductive system.  24. Female reproductive system.  25. General Embryology.  26. Embryonic stage of development  27. Special Embryology  28. Head and neck development and pharyngeal system.  29. Development of the urogenital system  30. Seminars: 1. Contraception and contraceptive methods; 2. Stem cells and cloning of mammals. Test: male and female reproductive system and embryology.  **Exercises:**  1. Microscopy: parts of the microscope, working on microscope.  2. Shapes of the nuclei  3. Ultrastructure of the cell.  4. Epithelial tissue  5. Pseudostratified two or three-row epithelium, urothelium  6. Stratified squamous keratinized epithelium, Stratified squamous non-keratinized epithelium, exocrine and endocrine gland (pancreas).  7. Connective tissue  8. The elastic connective tissue, fibrotic (regular and irregular) connective tissues, adipose (white and brown) tissue.  9. Hyaline cartilage, elastic cartilage, bone, intramembranous and endochondral ossification.  10. Blood: peripheral blood smear  11. Hematopoiesis: Bone marrow smear.  12. Muscle tissue: skeletal (in the longitudinal and transverse section), cardiac and smooth muscle tissue..  13. Nervous system: cerebrum, cerebellum, spinal cord.  14. Spinal ganglion, vegetative ganglion, peripheral nerve, Vater-Pacini corpuscles.  15. Кардиоваскуларни систем  16. Имунски систем  17. Ендокрини систем  18. Parathyroid, adrenal gland, endocrine pancreas, DNES.  19. Respiratory system: epiglottis, trachea, lungs  20. Digestive system: tooth, serous, mucous and seromucous gland.  21. Tongue, soft palate, esophagus, stomach.  22. Duodenum, jejunum, ileum, apendix, colon  23. Liver, gallbladder, pancreas.  24. Urinary system: kidney, urinary bladder  25. The eye: the cornea, the angle of the eye. Ear: inner ear. Skin and breast (during rest and lactation).  26. Male reproductive system: testis, fetal testis, epididymis, d. deferens, prostate.  27. Female reproductive system: a girl ovary, cat ovary, a yellow and white body.  28. Fallopian tube, uterus in proliferative and secretion phase, cervix, vagina  29. Embryology: placenta, umbilical cord.  30. Embryo preparation | | | | | | | | | | | | | | | | |
| **Compulsory literature** | | | | | | | | | | | | | | | | | | |
| **Author/s** | | | | **Publication title, Publisher** | | | | | | | | | **Year** | | | **Pages (from-to)** | | |
| Anthony L. Mescher. | | | | Junqueiras Basic Histology - Text and Atlas.McGrawHill, New York, | | | | | | | | | 2016. | | |  | | |
| Sadler T.W. Langmans | | | | Medical Embryology.Lippincott - Williams and Wilkins, Baltimore, | | | | | | | | | 2006. | | |  | | |
| **Additional literature** | | | | | | | | | | | | | | | | | | |
| **Author/s** | | | | **Publication title, Publisher** | | | | | | | | | **Year** | | | **Pages (from-to)** | | |
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| **Student responsibilities, types of student assessment and grading** | | **Grading policy** | | | | | | | | | | | | | **Points** | | | **Percentage** |
| Pre-exam activities | | | | | | | | | | | | | | | | |
| lecture/exercise attendance | | | | | | | | | | | | | 14 | | | 14% |
| seminar paper | | | | | | | | | | | | | 6 | | | 6% |
| colloquium | | | | | | | | | | | | | 30 | | | 30% |
| Final exam | | | | | | | | | | | | | | | | |
| practical test | | | | | | | | | | | | 10 | | | 10% | |
| written exam | | | | | | | | | | | | 40 | | | 40% | |
| TOTAL | | | | | | | | | | | | 100 | | | 100 % | |
| **Certification date** | | December 13 th 2018 | | | | | | | | | | | | | | | | |

Responsible Person of the Faculty

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1. Coefficient of student workload So is calculated as it follows:

   а) for the study programs not going through the licensing process: So = (total workload in semester for all the subjects 900 hrs – total teaching workload L+E in semester for all the subjects 870 hrs)/ total teaching workload L+E in semester for all the subjects \_\_\_\_\_ hrs = \_\_\_\_. Consult form content and its explanation.

   b) for the study programs going through the licencing process, it is necessary to use form content and its explanation. [↑](#footnote-ref-1)