
		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-02-1-002-1; ME-02-1-002-2			compulsory		I,II		13
Professor/ -s		Assist. prof. Milica Labudovic, PhD; assist. prof. Nela Puskas, PhD					
Associate/ -s		Senior assist. Snezana Zecevic, MD; senior assist Ljiljana Kozic, MD					
Number of lectures/ teaching workload (per week)			Individual student workload (in hours per semester)			Coefficient of student workload S_o ¹	
L	E	SP	L	E	SP	S_o	
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)				total student workload (in hours, per semester)			
3*15+3*15+0*15 =90				3*15*1+3*15*1+0*15*1 = 90			
3*15+4*15+0*15=105				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					
General competences		They possess broad fundamentals of theoretical knowledge and practical skills, preparing them for any type of postgraduate education as well as for collaboration with other medical professionals. They have adopted attitudes concerning medical ethics. They are prepared for further development and advances within the field of medicine They are acquainted with methodology of scientific research. They are capable of acting in accordance with rational and scientific concepts and principles. They are conscious of the necessity for continuous learning and improvement process to maintain a high level of medical competence.					
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.					

¹Coefficient of student workload S_o is calculated as it follows:

a) for the study programs not going through the licensing process: $S_o = (\text{total workload in semester for all the subjects } 900 \text{ hrs} - \text{total teaching workload } L+E \text{ in semester for all the subjects } 870 \text{ hrs}) / \text{total teaching workload } L+E \text{ in semester for all the subjects } \text{ hrs} = \text{ }.$ Consult form content and its explanation.
b) for the study programs going through the licensing process, it is necessary to use form content and its explanation.

	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, appendix, 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)
	Lackovic, N., Nikolic, I. Todorovic, V.	Osnovna i oralna histologija i embriologija, Data status, Beograd	2012	
	Rancic, G., Nikolic, I.	Praktikum za vjezbe iz histologije i embriologije	2010	
	Additional literature			
	Author/s	Publication title, Publisher	Year	Pages (from-to)
Student responsibilities, types of student assessment and	Grading policy		Points	Percentage
	Pre-exam activities			
	lecture/exercise attendance		14	14%
	seminar paper		6	6%

grading	colloquium	30	30%
	Final exam		
	test	10	10%
	practical test	10	10%
	oral exam	30	30%
	TOTAL	100	100 %
Certification date	June 17th 2024		