

NAME OF THE COURSE		Anatomy and Histology				
Code	PMB543	Year of study	1.			
Course teacher	Prof. Ivana Bočina, PhD	Credits (ECTS)	6.0			
Associate teachers	Nives Kević, PhD	Type of instruction (number of hours)	L	S	E	F
			45	15	30	
Status of the course	Mandatory	Percentage of application of e-learning	20%			
COURSE DESCRIPTION						
Course objectives	<p>The course objectives are:</p> <ul style="list-style-type: none"> <li>- adoption of basic anatomical principles and titles important for knowing the structure of human body</li> <li>- acquisition of knowledge about anatomical structure, location and mutual relationship between organs and organic systems that build the human body</li> <li>- the acquisition of knowledge about the types of tissues and their properties,</li> <li>- description, recognition and understanding of the histological structure of tissues and organs,</li> <li>- Understanding the interrelationship between the tissues</li> <li>- Introduction to the histological and functional connection of tissues within organs and organs,</li> <li>- recognition of tissue using histological slides</li> </ul>					
Course enrolment requirements and entry competences required for the course	No requirements needed.					
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	<p>After completing the exam, the student will be able to:</p> <ol style="list-style-type: none"> <li>1. Understand the basic anatomical concepts and principles of anatomical structure of the human body</li> <li>2. Describe the texture of individual anatomical parts of the human body</li> <li>3. Explain the arrangement of the anatomical parts of the human body</li> <li>4. Categorize individual organs of the human body within the anatomical and functional ensemble</li> <li>5. Understand the mutual relationship between organs and organic systems within the organism</li> <li>6. Explain basic concepts in histology</li> <li>7. Describe and explain the histological structure and know how to distinguish tissues and organs based on their histological structure at the level of light microscopy</li> <li>8. Categorize tissues and organs</li> <li>9. Understand relationships between tissues and organs</li> <li>10. Explain the structure of the tissue and their association within the organs</li> </ol>					
Course content broken down in detail by weekly class schedule (syllabus)	<p>LECTURES:</p> <p>Week 1. Introduction to anatomy, histology and histology techniques (3 hours)</p> <p>Week 2. Bone system. Bones of the head, trunk, upper and lower limbs (3 hours)</p> <p>Week 3. Connective tissue (3 hours)</p> <p>Week 4. Joints. Cartilaginous tissue (3 hours)</p> <p>Week 5. Muscle tissue and muscular system (3 hours)</p> <p>Week 6. Muscles of the head, neck, trunk, upper and lower limbs (3 hours)</p> <p>Week 7. Nerve tissue and nervous system. (3 hours)</p>					

Week 8. Central, peripheral and autonomic nervous system. Sense organs. (3 hours)

Week 9. The heart and circulatory system. The blood (3 hours)

Week 10. Immune system (3 hours)

Week 11. Epithelial tissue. Digestive system. Digestive tube. (3 hours)

Week 12. Digestive glands. Respiratory system. (3 hours)

Week 13. Urinary system. (3 hours)

Week 14. Male and female reproductive system. (3 hours)

Week 15. Endocrine glands (3 hours)

#### SEMINARS:

Week 1. Microscopy techniques in histology (1 hour)

Week 2. Bone system (1 hour)

Week 3. Connective tissue (1 hour)

Week 4. Joints. Cartilaginous tissue. (1 hour)

Week 5. Muscle tissue and muscular system. (1 hour)

Week 6. Muscles of the head, neck, trunk, upper and lower limbs. (1 hour)

Week 7. Nerve tissue and nervous system. (1 hour)

Week 8. Central, peripheral and autonomic nervous tissue. Sense organs. (1 hour)

Week 9. The heart and circulatory system. The blood. (1 hour)

Week 10. Immune system (1 hour)

Week 11. Epithelial tissue. Digestive system. Digestive tube. (1 sat)

Week 12. Digestive glands. Respiratory system. (1 hour)

Week 13. Urinary system. (1 hour)

Week 14. Male and female reproductive system. (1 hour)

Week 15. Endocrine glands (1hour)

Students will prepare seminars according to teacher's guidelines. Successfully committed seminar is required to enter partial exam.

#### EXERCISES:

Week 1. Connective tissue – regular and irregular connective tissue, loose and dense connective tissue, special types of connective tissue (2 hours)

Week 2. Cartilaginous tissue – section through hyaline, elastic and fibrocartilage (2 hours)

Week 3. Bone tissue – section through bone tissue, Haversian system, Haversian lamellae, osteocytes (2 hours)

Week 4. Muscle tissue – skeletal, smooth and heart muscle tissue (2 hours)

Week 5. Nerve tissue and nervous system – section through white and grey matter of the spinal cord, cerebellum, brain, peripheral nerve (2 hours)

Week 6. Circulatory system and blood – section through aorta, muscular artery and vein. Blood cells. (2 hours)

Week 7. Immune system – section through lymph node, spleen, thymus (2 hours)

Week 8. Epithelial tissue (2 hours)

Week 9. Digestive tube – section through oesophagus, stomach, small and large intestines (2 hours)

Week 10. Digestive glands – section through salivary glands, liver, gallbladder and pancreas (2 hours)

	<p>Week 11. Respiratory system – section through epiglottis, trachea, lungs (2 hours)</p> <p>Week 12. Urinary system – section through kidney, ureter, urinary bladder (2 hours)</p> <p>Week 13. Male reproductive system – section through testes, ductus deferens and penis (2 hours)</p> <p>Week 14. Female reproductive system – section through ovary, uterine tube and uterus (2 hours)</p> <p>Week 15. Endocrine glands – section through pituitary gland, thyroid gland, adrenal gland (2 hours)</p>					
Format of instruction	<input checked="" type="checkbox"/> lectures <input type="checkbox"/> seminars and workshops <input checked="" type="checkbox"/> exercises <input type="checkbox"/> <i>on line</i> in entirety <input type="checkbox"/> partial e-learning <input type="checkbox"/> field work			<input checked="" type="checkbox"/> independent assignments <input type="checkbox"/> multimedia <input type="checkbox"/> laboratory <input type="checkbox"/> work with mentor <input type="checkbox"/> (other)		
Student responsibilities	Attendance of lectures and exercises.					
Screening student work ( <i>name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course</i> )	Class attendance	1.0	Research		Practical training	
	Experimental work		Report		Microscopy	1.0
	Essay		Seminar essay	2.0	(Other)	
	Tests		Oral exam		(Other)	
	Written exam	2.0	Project		(Other)	
Grading and evaluating student work in class and at the final exam	Students are evaluated through a written, oral and practical exam. The written test takes place during the semester through two partial tests to satisfy 60%. Students who pass both partial tests go directly to the practical part of the exam. Students who do not pass one of the partial tests put together an oral and practical exam.					
Required literature (available in the library and via other media)	<b>Title</b>			<b>Number of copies in the library</b>	<b>Availability via other media</b>	
	Junqueira L.C., Carneiro, J., Kelly R.O. (2005) Osnove histologije. Školska knjiga, Zagreb			5		
	Keros, P, Pećina M, M., Ivančić-Košuta, 1999. Temelji anatomije čovjeka. Naprijed, Zagreb.			5		
	Sobotta, Pultz, R. R. Pabst, 2000. Anatomski atlas. Naklada Slap. Jastrebarsko			5		
Optional literature (at the time of	1. Bajek, S; Bobinac, D; Jerković, R; Malnar, D; Marić, I (2007) Sustavna anatomija čovjeka. Sveučilište u Rijeci, Rijeka					

submission of study programme proposal)	2. Told/Hochstetter, J. Krmpotić-Nemanić, 1980. Anatomski atlas. Medicinska naklada, Zagreb. 3. A.L. Mescher (2013) Junqueira's basic histology. McGraw-Hill, New York.
Quality assurance methods that ensure the acquisition of exit competences	Active participation in course, evaluation of course and teacher, personal consultation.
Other (as the proposer wishes to add)	