



Univerza v Mariboru

Medicinska fakulteta

UČNI NAČRT PREDMETA / SUBJECT SPECIFICATION

Predmet:	Anatomija s histologijo in embriologijo
Subject Title:	Anatomy with Histology and Embryology

Študijski program in stopnja Study programme and cycle	Študijska smer Study option	Letnik Year of study	Semester Semester
Dentalna medicina/Dental Medicine 2. stopnja/2nd cycle		1	1, 2 1, 2

Vrsta predmeta / Course type

Obvezni/Compulsory

Univerzitetna koda predmeta / University subject code:

Predavanja Lectures	Seminar Seminar	Vaje Tutorial	Klinične vaje Clinical training	Druge oblike študija Other forms of study	Samost. delo Individual work	ECTS
90	45	120			225	16

Nosilec predmeta / Lecturer:

Red. prof. dr. Božena Pejkovič

Jeziki /

Predavanja / Lecture: slovenščina/slovene

Languages:

Vaje / Tutorial: slovenščina/slovene

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:

Prerequisites:

Vsebina:

Anatomija

Vsebina obsega sistematsko in topografsko anatomijo človeškega telesa s poudarkom na glavi in vratu:

- Uvod v anatomijo
- Vrat in glava
- Centralni živčni sistem
- Prsni koš
- Trebuh
- Medenica
- Zgornji ud
- Spodnji ud

HistologijaVsebina obsega splošno in specialno histologijo človeškega telesa
Splošna histologija

Content (Syllabus outline):

Anatomy

Content comprises systematic and topographic anatomy of human body with emphasis on the head and neck:

- Introduction to anatomy
- Neck and head
- Central nervous system
- Thorax
- Abdomen
- Pelvis
- Superior extremity
- Inferior extremity

HistologyContent comprises general and special histology of human body
General histology

<p>-Epitelijska tkiva -Veziva -Mišičnina -Živčno tkivo Specialna histologija -Obtočila -Kri -Imunski sistem in limfni organi -Endokrine žleze -Prebavila -Dihala -Sečila -Moška spolovila -Ženska spolovila -Koža -Periferno in centralno živčevje -Čutila</p> <p>Embriologija Splošna embriologija Gametogeneza Od oploditve do vgnezdenja Oblikovanje dvolistnega embrionalnega ščita Oblikovanje trilistnega embrionalnega ščita Plodove membrane in posteljica Specialna embriologija Razvoj srca in obtočil Razvoj živčevja Razvoj prebavil Razvoj dihal Razvoj urogenitalnega sistema Razvoj škržnih (branhialnih) organov</p>	<p>-Epithelia -Connective tissue -Muscular tissue -Nervous tissue Special histology -Vascular system -Blood -Immune system and lymphatic organs -Endocrine glands -Digestive system -Respiratory system -Urinary system -Male genital organs -Female genital organs -Skin -Peripheral and central nervous system -Organs of special senses</p> <p>Embryology General embryology Gametogenesis From ovulation to implantation Development of bilaminar germ disc Development of trilaminar germ disc Fetal membranes and placenta Special embryology Development of cardiovascular system Development of nervous system Development of digestive system Development of respiratory system Development of urogenital system Development of pharyngeal organs</p>
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Temeljni literatura in viri / Textbooks:**Temeljni viri/Fundamental textbooks**

1. Drake RL, Vogl W, Mitchell AW: Gray's Anatomy for Students. Elsevier Churchill Livingstone, New York 2014
2. PEJKOVIĆ, Božena, JESENŠEK, Marko. Vodnik skozi anatomske terminologije = Ductio per terminologiam anatomicam. 1. izd. Maribor: Medicinska fakulteta, 2013
3. Young, Woodford, O'Dowd: Wheather's Functional Histology, 6th Ed. Elsevier 2013

Dopolnilna literatura:

1. Pejković B: Anatomija človeškega telesa – compendium topografske anatomije in navodila za vaje, MF UM 2007
2. Draganić V, Jeličić N, Djordjević Lj, Radonjić V, Pejković B. Anatomija čoveka – priručnik za praktičnu nastavu. Četvrto izmenjeno i dopunjeno izdanje, Savremena administracija, Beograd, 2012
3. Rohen JW: Topographische Anatomie. Schattauer FK, 2008
4. Hansen JT: Netter's Clinical Anatomy, 3rd Ed. Elsevier, 2014
5. Drake RL, Vogl W, Mitchell AW Gray's Atlas of Anatomy, Elsevier, 2014
6. Junqueira LC, Carneiro J: BASIC HISTOLOGY. Textbook and Atlas. Lange Medical Book Mc Graw Hill, 2007.
7. Carlson Human Embryology and Developmental Biology 5th Ed. Elsevier, 2013
8. Young, Woodford, O'Dowd: Wheather's Functional Histology, 6th Ed. Elsevier 2013

9. Štiblar Martinčič D. HISTOLOGIJA, Univerzitetni učbenik, MF UM, Maribor oktober 2010
 10. Štiblar Martinčič D, Munda M. HISTOLOGIJA, Navodila za vaje. Univerzitetni učbenik, MF UM, Maribor oktober 2009.
 11. Štiblar-Martinčič D. EMBRIOLOGIJA, Univerzitetni učbenik, MF UM, Maribor oktober 2011

Cilji:

Zagotoviti študentu znanje anatomije, histologije in embriologije, ki je potrebno za razumevanje poznejših predkliničnih in kliničnih predmetov.

Predvideni študijski rezultati:**Znanje in razumevanje:**

Študent mora poznati razmere na truplu in anatomskih modelih ob upoštevanju vseh vidikov anatomije na živem; temeljno je poznavanje anatomije pri odraslem človeku. V nekaterih primerih je potrebno poznati tudi specifično anatomijo različnih starostnih obdobj ter možne pogostejše variante, kar je pomembno za razumevanje klinične medicine. Znanje histologije – mikroskopske zgradbe človekovega organizma, s posebnim poudarkom na funkciji posameznih celic, tkiv in organov (histofiziologija) in spoznanje posameznih stopenj v embrionalnem razvoju je enako pomembno za nadaljnji študij.

Prenesljive/ključne spretnosti in drugi atributi:

Temeljno medicinsko znanje o zgradbi in delovanju ter razvoju zdravega človeškega telesa omogoča študentu, da tekom nadaljnega študija to znanje uporabi za razumevanje bolezenskih sprememb in razvojnih anomalij.

Metode poučevanja in učenja:

Predavanja
 Seminarji
 Vaje

Načini ocenjevanja:

Način (pisni izpit, ustno izpraševanje, naloge, projekt):

ŠTUDIJSKE OBVEZNOSTI ŠTUDENTOV

Opravljene vaje (100%)

Opravljene seminarji (100%)

POGOJ ZA PRISTOP K IZPITU so opravljeni vsi obvezni kolokviji iz Anatomije (80 %):

- Thorax, Abdomen, Pelvis (20%)
- Membrum superius (1,5%)
- Membrum inferius (1,5%)
- Collum et caput (50%)

Objectives:

Provide a student with knowledge of anatomy, histology and embryology that is necessary for understanding of other preclinical and clinical subjects.

Intended learning outcomes:**Knowledge and understanding:**

A student has to recognize the relations on cadavers and anatomical models in consideration of all the aspects of anatomy in living human. Knowing of anatomy of adult human body is basic, although in some instances it is necessary to recognize anatomical variations of different periods of human age, which is important for understanding of clinical medicine. The knowing of histology – the microscopic structure of human organism, with an emphasis on the function of certain cells, tissues and organs (histophysiology) and the knowledge of certain stages in embryonal development is also important for further studies.

Transferable/Key Skills and other attributes:

The basic medical knowledge about the structure, function and the development of the healthy human body, enables a student to apply it in recognition and comprehension of pathological changes and developmental anomalies in the course of his further studies.

Learning and teaching methods:

Lectures
 Seminars
 Tutorial

**Delež (v %) /
Weight (in %)****Assessment:**

Type (examination, oral, coursework, project):

ACADEMIC OBLIGATIONS OF STUDENTS:

Completed practical work (100%)

Completed seminars (100%)

REQUIREMENTS FOR ACCESS TO INDIVIDUAL KNOWLEDGE CHECKING: are completed all the obligatory colloquia Anatomy (80%):

- The thorax. The abdomen, The pelvis (20%)
- The superior extremity (1,5%)
- The inferior extremity (1,5%)

<p>– Systema nervosum centrale (7%)</p> <p>in Histologije z embriologijo (20%)</p> <p>Pogoji za prijavo na izpit in pristop k izpitu so opravljeni vsi obvezni kolokviji.</p> <p>Študenti, ki niso opravili vseh obveznih kolokvijev, morajo opraviti predizpitni kolokvij. Predizpitni kolokvij sestoji iz vseh manjkajočih kolokvijev in ga opravljajo študenti pred izpitom. Pogoj za pristop k predizpitnemu kolokviju je prijava na izpit.</p> <p>IZPIT</p> <p>pisni izpit 50 %</p> <p>ustni izpit 50 %</p> <p>Izpit je sestavljen iz dveh delov:</p> <p>1) pisni del - študent mora pravilno odgovoriti na vprašanja iz topografske anatomije glave in vratu ter ostalih delov človeškega telesa</p> <p>2) ustni del - študent mora točno odgovoriti na vprašanja iz topografske anatomije glave in vratu ter ostalih delov človeškega telesa.</p>	<p>Anatomija s histologijo in embriologijo (100 %) od tega</p> <p>50 %</p> <p>50 %</p>	<p>– The neck and head (50%)</p> <p>– The central nervous system (7%)</p> <p>And Histology with embryology (20%)</p> <p>Conditions for sign-up and approach to the examination are completed all the obligatory colloquia. The students who did not complete all the obligatory colloquia must pass the preexaminational colloquium. The preexaminational colloquium consists of all the missing colloquia and it must be completed before the examination. The condition for approaching the preexaminational colloquium is the sign-up to the examination.</p> <p>THE EXAMINATION</p> <p>written examination 50%</p> <p>oral examination 50%</p> <p>The exam consists of two parts: 1) the written part - the student must answer correctly the questions from the topographical anatomy head, neck and other parts of the human body</p> <p>2) the oral part - the student must answer correctly the questions from the topographical anatomy head, neck and other parts of the human body.</p>
<p>Reference nosilca / Lecturer's references:</p>		
<p>KOŠUTIĆ, Damir, PEJKOVIĆ, Božena, ANDERHUBER, Friedrich, VADNJAL, Sabina, ŽIČ, Rado, GULIC, Rozita, KRAJNC, Ivan, ŠOLMAN, Lea, KOCBEK, Lidija. Complete mapping of lateral and medial sural artery perforators : anatomical study with Duplex-Doppler ultrasound correlation. Journal of plastic, reconstructive & aesthetic surgery, ISSN 1748-6815, 2012, vol. 65, issue 11, str. 1530-1536, doi: 10.1016/j.bjps.2012.04.045. [COBISS.SI-ID 512228408], [JCR, SNIP, WoS do 5. 1. 2013: št. citatov (TC): 0, čistih citatov (CI): 0, normirano št. čistih citatov (NC): 0, Scopus do 30. 10. 2012: št. citatov (TC): 0, čistih citatov (CI): 0, normirano št. čistih citatov (NC): 0]</p> <p>KOŠUTIĆ, Damir, PEJKOVIĆ, Božena. Applied clinical anatomy of perforator flaps : microsurgery meets radiology. V: Abstracts for the IVth International Symposium of Clinical and Applied Anatomy (ISCAA), 28 June-1 July 2012, Ankara, Turkey & the XIVth National Congress of Anatomy, 28 June-1 July 2012, Ankara, Turkey, (Anatomy, ISSN 1307-8798, vol. 6, suppl. (2012)). Istanbul: Turkish Society of Anatomy and Clinical Anatomy (TSACA), cop. 2012, vol. 6, suppl. June, str. S9. [COBISS.SI-ID 512217912]</p> <p>PEJKOVIĆ, Božena, KOCBEK, Lidija, KOŠUTIĆ, Damir, BELE, Uroš, KELC, Robi, ŠARENAC, Tomislav, KRAJNC, Ivan. Anatomical peculiarities of cardiac blood vessels in the human heart. V: 3rd International Symposium of Clinical and Applied Anatomy, University of Maribor, Faculty of Medicine, 22-24 July 2011. PEJKOVIĆ, Božena (ur.), ŠTIBLAR-MARTINČIČ, Draga (ur.). Book of abstracts. Maribor: Faculty of Medicine, 2011, str. 19. [COBISS.SI-ID 512135992]</p> <p>DRAGANIĆ, Vera, JELIČIĆ, Nadežda A., ĐORĐEVIĆ, Ljubica, RADONJIĆ, Vidosava, PEJKOVIĆ, Božena, DRAGANIĆ, Vera (urednik). Anatomija čoveka : priručnik za praktičnu nastavu. 4. izmenjeno i dopunjeno izd. Beograd: Savremena administracija, 2012. 431 str., ilustr. ISBN 978-86-387-0802-4. [COBISS.SI-ID 188451084]</p> <p>2.06 Enciklopedija, slovar, leksikon, priročnik, atlas, zemljevid</p>		

2022/2023

PEJKOVIĆ, Božena, JESENŠEK, Marko. Vodnik skozi anatomsko terminologijo = Ductio per terminologiam anatomicam. 1. izd. Maribor: Medicinska fakulteta, 2013. 190, 182 str., ilustr. ISBN 978-961-6739-47-4. [COBISS.SI-ID 267753472]