

UČNI NAČRT PREDMETA / COURSE SYLLABUS						
<b>Predmet:</b>		<b>Zobne bolezni</b>				
<b>Course title:</b>		<b>Dental Pathology</b>				
<b>Študijski program in stopnja</b> Study programme and cycle		<b>Študijska smer</b> Study option		<b>Letnik</b> Year of study	<b>Semester</b> Semester	
Dentalna medicina/Dental Medicine 2. stopnja/2nd cycle				4	8	
<b>Vrsta predmeta / Course type</b>				Obvezni/ Compulsory		
<b>Univerzitetna koda predmeta / University course code:</b>						
<b>Predavanja</b> Lectures	<b>Seminar</b> Seminar	<b>Vaje</b> Tutorial	<b>Klinične vaje</b> Clinical training	<b>Druge oblike študija</b> Other forms of study	<b>Samost. delo</b> Individual work	<b>ECTS</b>
30			30		60	4
<b>Nosilec predmeta / Lecturer:</b>		Izr. prof. dr. sc. Ivana Brekalo Pršo/Ivana Brekalo Pršo, DMD, PhD Izr. prof. dr. sc. Alen Braut/Alen Braut, DMD, PhD				
<b>Jeziki /</b> Languages:	<b>Predavanja / Lectures:</b>	slovenščina/slovene				
	<b>Vaje / Tutorial:</b>	slovenščina/slovene				
<b>Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:</b>			<b>Prerequisites:</b>			
<b>Vsebina:</b>			<b>Content (Syllabus outline):</b>			
<p>Posredno in neposredno prekrivanje pulpe in regenerativne sposobnosti pulpe. Materiali za direktno in indirektno pokrivanje pulpe. Oskrba zapletenih karioznih lezij. Komplicirana rekonstrukcija krone zoba. Lito, keramično in kompozitno polnilo (vložek, inlay, onlay, overlay). Akutna in kronična poškodba zobnih kron in njihova oskrba.</p> <p>Uvod v endodontijo. Zobna pulpa in periradikularna tkiva. Osnovne funkcije zobne pulpe. Sterilizacija in suho delovno polje. Reakcija pulpe na karies in zunanji dražljaji. Mehanizem nastajanja dentinske in pulpne bolečine. Etiologija pulpnih in periapikalnih bolezni. Bolezni pulpe in periapiksa. Regresivne in degenerativne spremembe pulpnega tkiva. Akutni in kronični pulpitis. Nekroza pulpe. Akutni in kronični apikalni parodontitis. Indikacije in kontraindikacije za endodontsko zdravljenje. Morfologija endodontskega prostora. Priprava dostopne votline. Diagnostični postopki v endodontiji. Endodontska radiografija. Endodontski instrumenti (ročni, strojni, ultrazvočni). Določanje dolžine korenskega kanala. Pulpotomija, pulpektomija. Instrumentacija endodontskega prostora. Kemična obdelava koreninskega kanala.</p>			<p>Indirect and direct pulp capping and regenerative capacity of pulp. Materials for direct and indirect pulp capping. Disruption of complex carious lesions. Complicated reconstruction of tooth crown. Cast, ceramic and composite fillings (inlay, onlay, overlay). Acute and chronic trauma of tooth crowns and their care.</p> <p>Introduction to endodontics. Dental pulp and periradicular tissue. Basic dental pulp functions. Sterilization and isolation the operative field. Reaction of pulp on caries and external stimuli. Mechanisms of pain from dentin and pulp.</p> <p>Etiology of pulp and periapical diseases. Diseases of pulp and periapical region. Regressive and degenerative changes in pulp tissue. Acute and chronic pulpitis. Pulp necrosis. Acute and chronic apical periodontitis. Indications and contraindications for endodontic treatment.</p> <p>Morphology of endodontic space. Access cavity preparations. Diagnostic procedures in endodontics. Endodontic radiography. Endodontic instruments (hand, rotary, ultrasound). Determination of root canal length. Pulpotomy, pulpectomy. Instrumentation of endodontic space. Chemical treatment of root canal.</p>			

<b>Temeljni literatura in viri / Readings:</b>	
<ul style="list-style-type: none"> <li>– Summitt JB, Robbins JW, Schwartz RS. Fundamentals of Operative Dentistry, Quintessence Publishing Co, Illinois, 2006.</li> <li>– Torabinejad M, Walton RE. Endodoncija - načela in praksa. Naklada Slap. 2009.</li> <li>– Hargreaves K, Berman L. Cohen's Pathways of the Pulp Expert Consult, Mosby Inc. St. Louis. 2015.</li> </ul>	
<b>Cilji in kompetence:</b>	<b>Objectives and competences:</b>
<p>Usposobiti študenta za diagnostiko in načrtovanje zdravljenja napredovalih karioznih lezij, ki so prizadele večji del trdega zobnega tkiva. Poudarek je na novih zobnih materialih za direktna in indirektna polnila in materialih, ki spodbujajo reparatorno sposobnost zobne pulpe. Študenti so tudi usposobljeni za oskrbo akutne in kronične travme zobne krone.</p> <p>Predmet obsega tudi področje endodontije, katerega cilj je spoznati študente z etiologijo, diagnosticiranjem in zdravljenjem endodontskih bolezni in periapikalnega tkiva. Na tem področju se obdelujejo vnetne, travmatske in degenerativne spremembe pulpne in periapikalnega tkiva ter diagnostični in terapevtski postopki.</p>	<p>The aim of the course is to enable the student to diagnose and set up a therapy plan for advanced carious lesions that affected most of the hard dental tissue. The emphasis is on new dental materials for direct and indirect fillings and materials that stimulate the dental pulp repair ability. Students are also trained to treat acute and chronic tooth crown injuries.</p> <p>The course also covers the area of endodontics aimed at introducing students with etiology, diagnosis and therapy of endodontic and periapical tissue diseases. In this area, inflammatory, traumatic or degenerative changes in pulp and periapical tissue topics are covered, as well as diagnostic and therapeutic procedures.</p>
<b>Predvideni študijski rezultati:</b>	<b>Intended learning outcomes:</b>
<p>Znanje in razumevanje:</p> <ul style="list-style-type: none"> <li>- Znati uporabiti pridobljeno znanje iz restavrativne stomatologije za oskrbo zapletenih kariesnih lezij in bolezni pulpe.</li> <li>- Opisati indikacijska področja za izdelavo indirektnih restavracij zobne krone.</li> <li>- Poznati vitalne metode zdravljenja pulpe.</li> <li>- Poznati postopke posrednega in neposrednega prekrivanja pulpe.</li> <li>- Opisati vrste travme zobne krone, njihovo razvrstitev in oskrbo.</li> <li>- Opisati etiološke dejavnike pulpnih in periapikalnih bolezni.</li> <li>- Poznati patohistološko in klinično sliko pulpitisa in apikalnega parodontitisa.</li> <li>- Določiti terapevtske smernice za zdravljenje vnetnih in regresivnih sprememb pulpe ter lezij apikalnih parodontalnih tkiv.</li> <li>- Podrobno spoznati morfologijo endodontskega prostora vseh zob.</li> <li>- Opisati lastnosti in uporabo ročnih in strojnih endodontskih instrumentov.</li> <li>- Poznati tehnike instrumentacije korenskega kanala in njegovo kemično obdelavo.</li> </ul>	<p>Knowledge and understanding:</p> <ul style="list-style-type: none"> <li>Know to apply the acquired knowledge from restorative dentistry for the care of complicated caries lesions and pulp diseases;</li> <li>Describe the indications for indirect tooth crown restorations;</li> <li>Know vital pulp therapy methods;</li> <li>Know the procedures for indirect and direct pulp capping;</li> <li>Describe the types of tooth crown trauma, their classification and treatment;</li> <li>Describe the etiologic factors of pulp and periapical diseases;</li> <li>Familiar with the pathohistological and clinical significance of pulpitis and apical periodontitis;</li> <li>Determine therapeutic guidelines for the treatment of inflammatory and regressive changes in pulp and lesions of apical periodontal tissue;</li> <li>To know in detail the morphology of the endodontic space of all teeth;</li> <li>Describe the properties and application of hand and rotary endodontic instruments;</li> <li>Know the techniques of root canal instrumentation and its chemical treatment.</li> </ul>
Znanja in spretnosti so podrobneje opisane v Katalogu znanj in spretnosti.	Knowledge and skills are described in more detail in the Catalogue of Knowledge and Skills.
<b>Metode poučevanja in učenja:</b>	<b>Learning and teaching methods:</b>
Predavanja	Lectures

Klinične vaje	Clinical training	
Načini ocenjevanja:	Delež (v %) / Weight (in %)	Assessment:
<p>Način (pisni izpit, ustno izpraševanje, naloge, projekt):</p> <p>kolokvij 20 % praktični izpit 30 %</p> <p>Zaključni izpit je:</p> <ul style="list-style-type: none"> <li>- pisni 20 %</li> <li>- ustni 30%.</li> </ul>	<p>20 % 30 %</p> <p>20 % 30 %</p>	<p>Type (examination, oral, coursework, project):</p> <p>preliminary exam 20% practical part 30%</p> <p>The final exam consists of the:</p> <ul style="list-style-type: none"> <li>- Written exam 20 % and</li> <li>- Oral exam 30%.</li> </ul>
<b>Reference nosilca / Lecturer's references:</b>		
<ol style="list-style-type: none"> <li>1. Persic Romana, Kqiku Lumnije, Brumini Gordana, Husetic Medina, Pezelj Ribaric, Sonja, <b>Brekalo Prso Ivana</b>, StadtlerPeter. Difference in the periapical status of endodontically treated teeth between the samples of Croatian and Austrian adult patients. Croatian medical journal. 52(6) (2011) ; 672-678 (CC).</li> <li>2. Peršić Bukmir R, Jurčević Grgić M, Brumini G, Spalj S, Pezelj-Ribaric S, <b>Brekalo Pršo I</b>. Influence of tobacco smoking on dental periapical condition in a sample of Croatian adults. Wien Klin Wochenschr. 2015 Dec 11 (CC).</li> <li>3. <b>Ivana Brekalo Pršo</b>, Sonja Pezelj-Ribarić, Maja Abram, Vladimir Ahel. Effect of Root Canal Sealers on Mouse Peritoneal Macrophage Fuctions. Folia Microbiol (Praha). 2007;52(1):95-8 (CC).</li> <li>4. Glavičić-Valovičić S, <b>Brekalo Pršo I</b>, Peršić Bukmir R, Braut A, Vidović I, Vidas J, Anić I. Utjecaj opterećenja na nastanak vertikalne frakture korijena tijekom strojne ProTaper i ProFile instrumentacije. Medicina Fluminensis 2014;50(3):330-338.</li> <li>5. Glavičić S, Anić I, <b>Braut A</b>, Miletić I, Borčić J. Vertical force and torque analysis during mechanical preparation of extracted teeth using hand ProTaper instruments. Aust Endod J. 2011 Aug;37(2):51-5 (CC).</li> <li>6. Damir Šnjarić, Zoran Čarija, <b>Alen Braut</b>, Adelaida Halaji, Maja Kovačević, Davor Kuiš, Irrigation of human prepared root canal – ex vivo based computational fluid dynamics analysis. Croat Med J. 2012;53:470-97.</li> <li>7. Miranda Muhvid-Urek, Zelika Vuksic, Sundana Simonic-Kocijan, Vedrana Braut, <b>Alen Braut</b>, Ivone Uhac. Co-ocurrnce of chronic head, face and neck pain,and depression in war veterans with post-traumatic stress disorder. Acta Clin Croat. 2015;54:266-271.</li> </ol>		