2025/2026

Univerza v Mariboru

UČNI NAČRT PREDMETA / COURSE SYLLABUS	
Predmet:	**Zobne bolezni (predklinika)**
Course title:	**Dental Pathology (Preclinic)**

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		**3**	**6.**

Vrsta predmeta / Course type	Obvezni/Compulsory
Univerzitetna koda predmeta / University course code:	

Predavanja Lectures	Seminar Seminar	Vaje Tutorial	Klinične vaje Clinical training	Druge oblike študija Other forms of study	Samost. delo Individual work		ECTS
30	15	**45**			**30**		**4**

Nosilec predmeta / Lecturer:	**Doc. dr. Romana Peršić Bukmir Red. prof. dr. Alen Braut**

Jeziki / Languages:	**Predavanja / Lectures:**	slovenščina/slovene
	Vaje / Tutorial:	slovenščina/slovene

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

Vsebina:		**Content (Syllabus outline):**
Uvod v kariesologijo in restavrativno zobozdravstvo. Vzdrževanje oralnega zdravja, preventivni ali restavrativni pristop. Karies kot specifična mikrobna okužba. Epidemiologija kariesa. Klinična slika in klasična klasifikacija kariesa. Patohistološka slika in patohistološka klasifikacija kariesa. Etiologija zobnega kariesa. Dentobakterijski plak in bakterijski biofilm. Kemični dogodki na emajlu in dentinut tekom kariesnega procesa. Ocena tveganja za nastanek kariesa. Kariogram. Preprečevanje kariesa (biokemični in klinični pristop). Razvojne zobne motnje. Morfološke in strukturne nepravilnosti trdih zobnih tkiv. Kariesne lezije – lokalizacija, širjenje; odločitev o obnovitvi. Temeljna in sodobna načela priprave in polnjenja votline. Principi adhezijskih votlin. Dentinalna rana in pripravki za zaščito pulpe dentinskega kompleksa. Polimerizacijske svetilke. Okluzijsko usklajevanje izpolnjene površine.		Introduction to cariology and restorative dentistry. Oral health maintenance, preventive or restorative approach. Caries as a specific microbial infection. Epidemiology of caries. Clinical significance and clinical classification of caries. Patohistological significance and pathohistological classification of caries. Etiology of dental caries. Dental plaque and bacterial biofilm. Chemical events in the enamel and dentine during the carious process. Estimation of risk for caries development. Cariogram. Caries Prevention (biochemical and clinical approach). Developmental teeth disorders. Morphological and structural irregularities of hard tooth tissues. Carious lesions - localization, dissemination; restoration decision. Fundamental and contemporary principles of cavity preparation and filling treatment. Principles of preparation for adhesive cavity. Dentinal wound and preparations for the protection of pulp dentin complex.Polymerization lamps. Assessment of dental occlusion of filling surface.

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1. Andre V. Ritter. Sturdevant's Art and Science of Operative Dentistry, 7th Edition.Elsevier, 2018.

2. Thomas J. Hilton, James B. Summitt, James Broome, Jack L. Ferracane. Fundamentals of Operative Dentistry A Contemporary Approach, Fourth Edition, Quintessence Publishing, 2019.

3.N.Garg, A. Garg. Textbook of Operative Dentistry 4th Edition. Jaypee Brothers Medical Publishers Pvt. Ltd.; 4th edition (October 1, 2019)

Dodatna literatura:
1.Ole Fejerskov (Editor), Bente Nyvad (Editor), Edwina Kidd (Editor). Dental Caries: The Disease and its Clinical Management, 3rd Edition. 2015. E-book
2.Andre V. Ritter. Sturdevant's Art and Science of Operative Dentistry, 7th Edition.Elsevier, 2018.E-book.
3.Graham J. Mount (Editor), Wyatt R. Hume (Editor), Hien C. Ngo (Editor), Mark S. Wolff (Editor). Preservation and Restoration of Tooth Structure, 3rd Edition, Wiley-Blackwell.2016,E-book.
4. Thomas J. Hilton / Jack L. Ferracane / James C. Broome (Editor). Fundamentals of Operative Dentistry A Contemporary Approach. Quintescence publishing 2013.E-book.

Cilji in kompetence:		**Objectives and competences:**
Cilj predmeta je usposobiti študenta, da se nauči metode diagnostike karijesa v sklopu predkliničnega dela pouka. da diagnosticira in načrtuje terapijo začetnih karioznih lezij zob in pridobi znanje o kompleksni interakciji dejavnikov pri razvoju zobnega kariesa. Študenti se naučijo klinično prepoznavati začetno in napredno kariozno lezijo zoba in uporabiti sodobne diagnostične postopke pri preprečevanju in diagnosticiranju zobnega kariesa. Seznanijo se z instrumentarijem in osnovnimi načeli terapije kariesa. Poudarek je na novih zobnih polnilnih materialih in izdelavi lepilne votline, s čimer se ohranja zdravo zobno tkivo. Študenti bi morali znati našteti tudi razvojne in morfološke anomalije trdega zobnega tkiva.		The aim of the course is to enable a student to learn about the methods of diagnostic procedures at the pretclinical work to diagnose and plan a therapy for initial carious lesion of the tooth and to gain knowledge about the complex interaction of factors in the development of dental caries. The task of teaching is to learn how to clinically recognize the initial and advanced carious lesion of the tooth and to use modern diagnostic procedures in the prevention and diagnosis of dental caries; Get familiar with the instruments and basic principles of caries therapy. The emphasis is on new dental filling materials and the fabrication of adhesive cavity, thus saving healthy dental tissue. Students should also be able to list the developmental and morphological anomalies of hard tooth tissue.
Predvideni študijski rezultati:		**Intended learning outcomes:**
Znanje in razumevanje: - Opredeliti epidemiologijo, etiologijo, klinično in patohistološko sliko kariesa. - Opredeliti diagnostične postopke za odkrivanje kariesnih poškodb ter izvajati klinične preskuse in postopke za ocenjevanje tveganja kariesa;. - Spoznati se z biokemičnim in kliničnim pristopom k preprečevanju kariesa. - Povezati sedanje znanje z etiologijo, diagnozo, patohistološko in klinično podobo kariesa ter potrebe po zdravljenju in vrnitvi zoba v funkcijo. - Prepoznati razvojne zobne motnje ter morfološke in strukturne nepravilnosti trdih zobnih tkiv.		Knowledge and understanding: Define epidemiology, etiology, clinical and pathohistological significance of caries; Define diagnostic procedures for the detection of caries lesions and conduct clinical tests and procedures for assessing caries risk; Introduce the biochemical and clinical approach for caries prevention; Link the current knowledge of etiology, diagnosis, pathohistological and clinical outcomes of the caries and the need for its treatment and restoration of the tooth; Identify developmental tooth disorders and morphological and structural irregularities of hard tooth tissues;

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- Opisati sodobne materiale za začasno in stalno izpolnitev kavitacijske votline ter njihovo klinično uporabo. - Znati opisati vse vrste preparacije votlin in način njihove oskrbe. - Opisati indikacijska področja za uporabo estetskih materialov.		Describe contemporary temporary and permanent materials and cavity liners and their clinical application; Know to describe all types of cavity preparation and the way they are disposed; Describe indications for application of aesthetic materials.
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.
Metode poučevanja in učenja:		**Learning and teaching methods:**
Predavanja Vaje		Lectures Tutorial

Načini ocenjevanja:	**Delež (v %) / Weight (in %)**	**Assessment:**
Način (pisni izpit, ustno izpraševanje, naloge, projekt)		Type (examination, oral, coursework, project):
Praktično usposabljanje	30 %	Practical training
Kolokvij	30 %	Midterm exam
Pisni izpit	40 %	Written exam
OPOMBE Kolokvija sta dva, vsak je vreden 15 %.		NOTES Two midterm exams, each is worth 15%.

Reference nosilca / Lecturer's references:

1. Persic Bukmir R, Paljevic E, Vidas J, Glazar I, Pezelj-Ribaric S, Brekalo Prso I. Is Coronal Restoration a Predictor of Posttreatment Apical Periodontitis? Eur J Dent. 2022 May;16(2):386-395. doi: 10.1055/s-0041-1735909. Epub 2021 Nov 9. PMID: 34753188; PMCID: PMC9339940.
2. Peršić Bukmir R, Paljević E, Pezelj-Ribarić S, Brekalo Pršo I. Association of the self-reported socioeconomic and health status with untreated dental caries and the oral hygiene level in adult patients. Dent Med Probl. 2022;59(4):539-545. doi:10.17219/dmp/138908
3. Paljevic E, Brekalo Prso I, Hrstic JV, Pezelj-Ribaric S, Persic Bukmir R. Impact of Smoking on the Healing of Apical Periodontitis after Nonsurgical Endodontic Treatment. Eur J Dent. 2023 Mar 28. doi: 10.1055/s-0043-1761451. Epub ahead of print. PMID: 36977477.
4. Paljević E, Brekalo Pršo I, Vidas Hrstić J, Božac E, Pezelj-Ribarić S, Peršić Bukmir R. Healing of apical periodontitis in type II diabetes mellitus patients: A prospective study. Oral Dis. 2024;30(5):3422-3430. doi:10.1111/odi.14772
5. Božac E, Paljević E, Sever E, Braut A, Špalj S, Peršić Bukmir R. Clinical characteristics and caries risk assessment of tobacco heating systems smokers, cigarette smokers and non-smokers: a cross-sectional study. Clin Oral Investig. 2024;28(7):382. Published 2024 Jun 18. doi:10.1007/s00784-024-05778-0
6. Peršić Bukmir R, Paljević E, Vidas Hrstić J, Božac E, Mocny-Pachonska K, Brekalo Pršo I. Association between Dental Variables and Hashimoto's Disease: A Retrospective Cohort Study. Eur J Dent. Published online March 12, 2025. doi:10.1055/s-0044-1800825

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1. Vidas J, Snjaric D, Braut A, Carija Z, Persic Bukmir R, De Moor RJG, Brekalo Prso I. Comparison of apical irrigant solution extrusion among conventional and laser-activated endodontic irrigation. Lasers Med Sci. 2021 Feb;35(1):205-211.

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2. Saltović E, Mijandrušić-Sinčić B, Braut A, Škrobonja I, Sever E, Glažar I, Pezelj-Ribarić S, Muhvić-Urek M. Absence of Oral Opportunistic Infections in Patients with Inflammatory Bowel Disease Receiving Anti-TNF-α and Anti-Integrin-α4β7 Therapy. Dent J (Basel). 2022 Feb 23;10(3):32. doi: 10.3390/dj10030032.

3. Božac E, Paljević E, Sever E, Braut A, Špalj S, Peršić Bukmir R. Clinical characteristics and caries risk assessment of tobacco heating systems smokers, cigarette smokers and non-smokers: a cross-sectional study. Clin Oral Investig. 2024;28(7):382. Published 2024 Jun 18. doi:10.1007/s00784-024-05778-0