

FIȘA DISCIPLINEI

1. Date despre program

1.1 Instituția de învățământ superior	UNIVERSITATEA DE MEDICINA ȘI FARMACIE "VICTOR BABEȘ" TIMIȘOARA
1.2 Facultatea	FACULTATEA DE MEDICINĂ DENTARĂ
1.3 Departamentul	I MD
1.4 Domeniul de studii de..... ¹⁾	Health + Sectorial Regulations in the European Union
1.5 Ciclul de studii ²⁾	Diploma
1.6 Programul de studii/ Calificarea	Dental Medicine

2. Date despre disciplină

2.1. Denumirea disciplinei	Dental Microscopy							
2.2 Titularul activităților de curs	Prof.Dr.Dr.med.dent.Stefan-Ioan Stratul							
2.3 Titularul activităților de laborator	Conf.Dr.Darian Rusu							
2.4 Anul de studiu	V	2.5 Semestrul	I	2.6 Tipul de evaluare	COLLOQUIUM	2.7 Regimul disciplinei	Conținut ³⁾	DC
							Obligativitate ³⁾	DO

3. Timpul total estimat (ore pe semestru al activităților didactice)

3.1 Număr de ore pe săptămână	2	3.2 din care: curs	1	3.3 stagii clinice	1
3.4 Total ore din planul de învățământ	28	3.5 din care: curs	14	3.6 stagii clinice	14
Distribuția fondului de timp					ore
Studiul după manual, suport de curs, bibliografie și notițe					0
Documentare suplimentară în bibliotecă, pe platformele electronice de specialitate și pe teren					0
Pregătire seminarii/ laboratoare/ proiecte, teme, referate, portofolii și eseuri					0
Tutoriat					
Examinări					2
Alte activități					
3.7 Total ore studiu individual		0 (1 credit DO x 30, minus 14, minus 14, minus 2 = 0)			
3.8 Total ore pe semestru		30			
3.9 Numărul de credite⁵⁾		1			

4. Precondiții (acolo unde este cazul)

4.1 de curriculum	Anatomy, Oral Pathology, Biophysics, Endodontology
4.2 de competențe	Not applicable

5. Condiții (acolo unde este cazul)

5.1 de desfășurare a cursului	<ul style="list-style-type: none"> The course is taught in English Mobile telephones will be switched off or kept on silence during the class; students cannot leave the room to take phone calls; Students arriving after the teacher will not be allowed to attend the class; Attendance to the course is mandatory; a certain number of absences will be tolerated, according to the Regulations of the University The class room must be provided with laptop, projector, interactive board.
5.2 de desfășurare a seminarului/ laboratorului/ proiectului	<ul style="list-style-type: none"> The treatment and demonstration rooms will be provided with computers and projector/screen. Mobile phones will be kept on silent mode Clinical classes will be in Romanian, as patients are Romanian and speak Romanian. The clinical teachers communicate with the student in English, except in the presence of the patient, where the clinical teachers will assist the student in communicating with the patient in Romanian, in order to provide the best cooperation with the patient. Students arriving after the teacher will not be allowed to attend the class. Students will be dressed according to the surgical specific of the Department. Attendance to demonstration/clinical classes is mandatory; a certain number of absences will be tolerated, according to the Regulations of the University, based on documented justification; clinical classes cannot be repeated. To enter the final practical examination, students will have to attend the required number of demonstration/clinical classes.

	<ul style="list-style-type: none"> The place and time of the final written and practical examinations will be decided by the teacher in consultation with the students, according to the Regulations of the University. No individual delays of the written examination will be accepted, unless serious, well-documented justifications will be provided. The practical examination will be in English, during the last week of the 2nd semester. Promotion of the practical examination is mandatory for promotion of the final exam of Dental Microscopy.
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6. Competențe specifice acumulate

Competențe Profesionale	<ol style="list-style-type: none"> Knowing the external, internal anatomy of the tooth and of the surrounding tissues. Knowing the sequence of endodontic procedures, conservative and restorative procedures, and basic notions of periodontal treatment planning and periodontal surgical procedures. Understanding the basic principles of medical optics. Understanding basic principles of ergonomics of the work in the dental office. Understanding basic technological principles of medical devices, with emphasis on magnification devices. Understanding basic notions dental practice management and marketing.
Competențe transversale	<ol style="list-style-type: none"> Identification of the roles and responsibilities in a pluridisciplinary team; employing of relationing techniques and efficient team working, to facilitate future interdisciplinary collaborations within the dental specialty and with other medical specialties. Efficient use of informational, communication and assisted professional formation resources (Internet portals, software applications, databases, online courses etc.) available in all international languages. Identifications of the objectives, of the resources, of the requirements to complete the objectives, of the working phases, of the timeline, of the deadlines and of the risks. Initiation of research activities in Endodontics, Conservative and Restorative Dentistry and in Periodontology, also in connection with other dental and medical specialties.

7. Obiectivele disciplinei (reieșind din competențele specifice acumulate)

7.1 Obiectivul general al disciplinei	To teach fundamental notions of magnification- and microscope-assisted dental treatments.
7.2 Obiectivele specifice	<ol style="list-style-type: none"> Introduction and detailed explanation of principles, physical fundaments and technological background of magnification devices for Dental Medicine. Description of the advantages, applications and methods of use of optical magnification devices in general and of the dental microscope in particular. To teach students the use of the dental microscope as an investigation, diagnostic and treatment tool in various subspecialties of the dental profession: Endodontology, Periodontology, Restorative Dentistry, Prosthodontics, Dental Esthetics, Oral Implantology.

8. Conținuturi

8.1 Courses	Metode de predare	Număr de ore	Observații
1. The Dental Operating Microscope (DOM). Utility. Anatomical and Physiological Background of Magnification.	Interactive lectures supported by ppt presentations, according to the course topics, including lots of suggestive clinical images. Each lecture begins with the course objectives and the course outline, and ends with a summary and conclusions.	1	The course support is distributed free to the students as electronic file. The textbooks included in the optional reference list are distributed free to the students as PDF files, or can be consulted, on request.
2. The Component Parts of the DOM. Fundamental Notions of Optics.		1	
3. The Varioscope. The Mora Interface. Angled Optical Components.		1	
4. The Co-axial Illumination. The Free Floating and Balance Systems. The Magnetic Brakes. Maintenance of the DOM.		1	
5. Ergonomics in Working with the DOM.		1	
6. The DOM in Endodontology. The Microendodontic Instruments. Examination in magnification of the External Surfaces of the Tooth.		1	
7. Identification of the Anatomic Elements of the Pulp Floor. Removal under Magnification of Coronal Restorations. Identification of internal cracks.		1	
8. Location of Root Canals using the DOM. DOM in the Identification and Negotiation		1	

of Calcified Canals.			
9. Use of DOM to Evaluate and Manage Root Perforations. Use of DOM in the Root Canal Filling and the Anterograde Re-treatment of Root Canals.		1	
10. The DOM in Endodontic Surgery. The DOM for Treatment of Large or Immature Apexes.		1	
11. The DOM in Periodontology and Implantology. Advantages and Disadvantages. The DOM and the "Microsurgical Concept".		1	
12. "The Learning Curve" in using the DOM within the "Microsurgical Concept". Common Errors in the Use of DOM in Surgical Practice.		1	
13. The DOM in Restorative Dentistry and in Prosthodontics.		1	
14. Documentation Using the DOM. FINAL EXAMINATION.		1	

Bibliografie obligatorie:

Stefan-Ioan Stratul. Dental Microscopy. Electronic course support.

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Bibliografie facultativă:

1. ***ZEISS. Microscopic dentistry. A practical guide. Carl Zeiss Meditec AG, 2014.
2. Rick Schmidt, Martin Boudro. The Dental Microscope. Why and How. S&B Publishing, 2011.
3. Syngkuk Kim, Gabriele Pecora, Richard A. Rubinstein. Color Atlas of Microsurgery in Endodontics. W.B.Saunders Company, 2011.
4. Massironi D., Pascetta R., Romeo G. Precision in Dental Esthetics. Clinical and Laboratory Procedures. Quintessence Books, 2007.
5. Stephen Cohen, Richard Burns - Pathways of the pulp, Eight Edition, Mosby

8.2 Seminar/ Laborator/stagiu/ proiect	Metode de predare-învățare	Număr de ore	Observații
1.Description of surgical loupes and of the Dental Operating Microscope (DOM): component parts, functioning mode.	SHORT INTERACTIVE PRESENTATIONS DEBATES PRACTICAL HANDS-ON EXERCISES ENDODONTIC TREATMENT DEMONSTRATIONS MICROSURGICAL DEMONSTRATIONS 15-30' ppt presentations and educational presentations and movies on CDs Assistance in taking professional clinical pictures for case documentation, using the DOM Practical exercises on artificial models and on animal tissue models, assisted by the clinical teacher. Live demonstrations of clinical procedures by the clinical teacher and by the course director	1	
2.Exercises of DOM-assisted diagnosis on healthy and diseased oral tissues.		1	
3.Exercises of ergonomic work using the DOM.. Organisation of the working space and of the workflow in dental practices around the DOM.		1	
4.DOM-assisted evaluation of the internal and external tooth anatomy.		1	
5.Practical exercises of locating, negotiating, preparation and re-preparation of root canals, using the DOM and ultrasound devices, on extracted teeth.		1	
6.Practical exercises of		1	

root canal filling using the vertical condensation technique, under the DOM.			
7.The microsurgical armamentarium and the DOM in apical surgery: live OP		1	
8. Microsurgical instruments and biologic materials for the treatment of perforations and internal and external root resorbtions.		1	
9.DOM-assisted diagnosis of coronal and radicular cracks and fssures. DOM-assisted treatment options for cracks and fissures.		1	
10.DOM-assisted root surface preparation during no-surgical periodontal therapy. Live demonstration.		1	
11.Microsurgical periodontal armamentarium: instruments and sutures.		1	
12. Exercises of microsurgical incisiosns and sutures on siliconic models/rubber membranes/animal tissues.		1	
13. DOM-assisted defectoscopy of endodontic rotary and microsurgical instruments. Documentation exercises using the DOM.		1	
14. Direct assistance in microsurgical live OPs.		1	
Bibliografie obligatorie: Stefan-Ioan Stratul. Dental Microscopy. Electronic course support. Bibliografie facultativă: 1. Jill S. Nield-Gehrig. Fundamentals of Periodontal Instrumentation and Advanced Root Instrumentation. Seventh Edition, Wolters Kluver, Lippincott Williams & Williams, 2008.			

9. Coroborarea conținuturilor disciplinei cu așteptările reprezentanților comunităților epistemice, asociaților profesionale și angajatori reprezentativi din domeniul aferent programului

<p>The undergraduate program of Dental Microscopy of the Dental School of the Victor Babes University of Medicine and Pharmacy of Timisoara is one of his kind worldwide, as it reflects the aspiration towards excellency of young dental professionals. The program is based on the close partnership of the University with the Romanian Society of Dental Microscopy SRMD, founding member of the European Society of Dental Microscopy ESMD. With the systematic study of Dental Microscopy – auxiliary discipline for Endodontology, Periodontology and Restorative Dentistry – the student will have to be able to use the Dental Operating Microscope (DOM) and various magnification devices to correctly and comprehesively examine teeth and the the periodontium, to establish a correct diagnosis in endodontic and periodontal</p>
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conditions, to detect, to access and to treat root canals difficult to find and calcified, to recover intracanal broken instruments, to treat endodontic perforations, to fill the root canals according to the latest technologies and to visually control the procedures, to perform microsurgical periodontal procedures and to add value to restorative treatments. The content of the curricula for the English-language section of the Timisoara Dental School reflects both European and non-European modern tendencies, as both groups of countries benefit of dentists trained in Romania. Dental GPs and specialists of Periodontology, Endodontology and Prosthodontics with good training in magnification-aided procedures are increasingly requested in multidisciplinary dental practices (private clinics), both in Romania and abroad.

10. Evaluare

Tip activitate	10.1 Criterii de evaluare	10.2 Metode de evaluare	10.3 Pondere din nota finală
10.4 Curs	<p><i>Cunoștințe pentru nota 5:</i> 50% of the MQ test correctly answered, according to the Examination Regulations of the University</p> <p><i>Cunoștințe pentru nota 10:</i> 90% of the MQ form correctly answered, according to the Examination Regulations of the University</p>	Final evaluation: MQ test with 50MQs.	50%
10.5 Laborator/Stagiu	<p><i>Cunoștințe pentru nota 5:</i> Weak interest manifested during the clinical classes.</p> <p><i>Cunoștințe pentru nota 10:</i> Strong interest manifested during clinical classes, good practical skills and interest for research in the field of Dental Microscopy.</p>	<p>Final evaluation (practical examination):</p> <p>Periodical colloquial verification of the interest for the study of Dental Microscopy during clinical clases, noted with a mark by the clinical teacher.</p> <p>Practical examination:</p> <ul style="list-style-type: none"> - Recognition of various magnification devices and parts of the DOM - Recognition of microsurgical instruments - Performance of MOD-assisted procedures on artificial model and patients 	50%
10.6 Standard minim de performanță			
Recognition of various magnification devices, theoretical knowledge of magnification-aided procedures.			

Data completării 01.11.2018	Semnătura titularului de curs Prof.Dr.Dr.med.dent. Stefan-Ioan Stratul	Semnătura titularului de laborator/stagiu 1. Stefan-Ioan Stratul 2. Darian Rusu
Semnătura șefului de disciplină Prof.Dr.Dr.med.dent.Stefan-Ioan Stratul		
Data avizării în departament	Semnătura directorului de departament Prof. Dr.	

Notă:

- 1) Domeniul de studii - *se alege una din variantele:* Licență/ Masterat/ Doctorat (se completează conform cu Nomenclatorul domeniilor și al specializărilor/ programelor de studii universitare în vigoare) ;
- 2) Ciclul de studii - *se alege una din variantele:* Licență/ Master/ Doctorat;
- 3) Regimul disciplinei (conținut) - *se alege una din variantele:* **DF** (disciplină fundamentală)/ **DD** (disciplină din domeniu)/ **DS** (disciplină de specialitate)/ **DC** (disciplină complementară) - *pentru nivelul de licență; DAP*

(disciplină de aprofundare)/ **DSI** (disciplină de sinteză)/ **DCA** (disciplină de cunoaștere avansată) - *pentru nivelul de masterat*;

- 4) Regimul disciplinei (obligativitate) - *se alege una din variantele:* **DI** (disciplină obligatorie)/ **DO** (disciplină opțională)/ **DFac** (disciplină facultativă);
- 5) Un credit este echivalent cu 25 – 30 de ore de studiu (activități didactice și studiu individual).
- 6) Pentru specializările și/sau disciplinele a căror tematică se regăsește în bibliografia de rezidențiat, aceasta devine obligatorie.