

## CHART OF DISCIPLINE/ SYLLABUS

### 1. Study Program Data

1.1 High Education Institution	<b>“VICTOR BABEȘ” UNIVERSITY OF MEDICINE AND PHARMACY OF TIMIȘOARA</b>
1.2 Faculty	<b>DENTAL MEDICINE</b>
1.3 Department	<b>III</b>
1.4 Study Domain ..... <sup>1)</sup>	<b>HEALTH</b>
1.5 Cycle Studies <sup>2)</sup>	<b>BACHELOR</b>
1.6 Study programme/ Qualification	<b>DENTAL MEDICINE (ENGLISH LANGUAGE)</b>

### 2. Course Data

2.1.Course/Department	<b>Minimally invasive techniques in dental medicine</b>							
2.2 Course tutor	S.I. Dr. <b>Cândea Adrian</b> , plata cu ora							
2.3 Practical activity tutors	S.I. Dr. <b>Cândea Adrian</b> , plata cu ora							
2.4. Year of study	IV	2.5 Semester	7	2.6 Assessment	Colocviu	2.7 Course rank	Content <sup>3)</sup>	<b>DS</b>
							Mandatory /Compulsory <sup>3)</sup>	<b>ED</b>

### 3. Duration/Estimated Time (number of hours/ semester of teaching activity)

3.1 Number of hours/ week	<b>2</b>	3.2 lecture/course	<b>1</b>	3.3 laboratory	<b>1</b>
3.4 Total hours of curriculum	<b>28</b>	3.5 lecture/course	<b>14</b>	3.6 laboratory	<b>14</b>
Time distribution for course activities					
Study support- manuals, lectures, references and notes					
Additional documentation – library, dedicated platforms from domain					
Documentation for seminars/ practical activity/ projects, themes, portofolios and essays					
Tutoring					
Assessment					
Other activities					
3.7 Total number of hours for individual study					
3.8 Total number of hours per semester					
3.9 Number of credits <sup>5)</sup>	<b>1</b>				

### 4. Preconditions (if applicable and requested)

4.1 Courses- studied curriculum / rules for attending the course		
4.2 Practical activities/seminars/projects studied curriculum, basic skills/ rules for attending the course		

### 5. Condition (if applicable and requested)

5.1 Courses	<ul style="list-style-type: none"> <li>Room needs a laptop, projector, interactive board.</li> <li>Mobile phones will be kept on silent during the class</li> <li>Students will meet in the assigned class</li> <li>Delay to lecture will not be tolerated as it proves disruptive to the educational process;</li> <li>Lecture presence is mandatory, 50% of absences will be accepted.</li> </ul>	•
5.2 Laboratory/practical activity/ project	<ul style="list-style-type: none"> <li>Delay to lecture will not be tolerated as it proves disruptive to the educational process;</li> <li>Laboratory presence is mandatory, 20% of absences will be accepted. Absences can be recovered in the last week of each semester with the permission of the group assistant, only after paying the corresponding tax;</li> <li>Final exam and laboratory exam dates will be set by the head of the department with the consultancy of the students;</li> <li>Practical exam will be held in the last week of the semester in accordance with laboratory curricula;</li> <li>Passing the laboratory exam is mandatory for passing the final exam.</li> </ul>	•

### 6. Key competencies and basic skills

<b>Professional Competencies</b>	1.Acquiring medical language, useful in the clinical practice; 2.Understanding the concepts of minimally invasive dentistry; 3.Ability to perform certain minimally invasive techniques on the typodont model..	
<b>Transversal Competencies</b>	1.Efficient use of communication resources (Internet, online lectures, data bases); 2.Identification of objectives, available resources, working steps as well as possible risks; 3.Initiation of research activities in the field of minimally invasive dentistry. 4. The profession of dentist is a job that requires interdisciplinarity, which is why it is necessary to develop abilities, other than medical, communication, organizational, technical, aesthetic.	

## 7. Disciplines/Course objectives (based on the key competences)

7.1 Disciplines/Course general objectives	1. To explain both theoretical and practical terms, notions, methods and principles regarding minimally invasive techniques of esthetic rehabilitation of partially edentulous patient.	
7.2 Disciplines/Course specific objectives	1. Understanding the minimally invasive treatment alternatives; 2. Minimally invasive preparation types suitable for single restorations and for small FPDs; 3. Impression materials and techniques; 4. Provisionals.	

## 8. Content

8.1 Course	Teaching method	Number of hours	Notification
1. What is minimally invasive dentistry? Terminology. Principles. Concepts. Advantages.	Oral lecture, interactive Powerpoint presentations; Powerpoint presentations with suggestive images and tables; Continuous updates of the lecture material in accordance with the newest concepts, devices, technologies in fixed prosthodontics; Clear statement of educational objectives before each lecture	1	•
2. Minimally invasive approaches to different clinical situations.		1	
3. Adhesion to hard dental tissues. Adhesion to enamel. Adhesion to dentin. Hybrid layer. Generation of adhesives.		1	
4. Conditioning procedures of adherent substrates of fixed prosthetic restorations		1	
5. Restorations of small edentations with direct methods (Ibsen, Portnoy).		1	
6. Adhesive fixed partial prosthetic restorations. Definition. Classification. Indications. Contraindications.		1	
7. Inlay as part of aggregation. Partial crowns as part of aggregation.		1	
8. Veneering. Direct technique. Description. Indications. Contraindications. / Veneering. Indirect technique. Non-invasive methods (non-prep) veneering. Lumineers.		1	
9. Alternatives to conventional techniques of tooth preparation. Principles and modern techniques in minimally invasive cavity preparation.		1	
10. Teeth whitening. Indications. Contraindications. Materials. Techniques.		1	
11. Orthodontic treatment preprosthetic role in achieving minimally invasive prosthetic restorations. Interceptive orthodontics - procedures.		1	
12. Minimally invasive restoration of teeth with endodontic treatment.		1	
13. Overlay vs. Overdenture. Special systems maintenance, support and stabilize adhesive therapy wing toothless extensive partial movable prosthesis. Shortened arch concept.		1	

14. News in sealing grooves and pits and remineralization of dental hard tissues.		1	
<b>Mandatory references:</b> <sup>6)</sup> 1. Shillingburg HT – Fundamentals of fixed prosthodontics (the 4th edition), Quintessence, 2012. 2. Rosenstiel SF – Contemporary fixed prosthodontics (the 6th edition), Elsevier, 2022. 3. Hasan Sarfaraz – Minimally Invasive Fixed Prosthodontics, LAP, 2022 4. Irfan Ahmad – Prosthodontics at a Glance (the 2nd edition), Wiley, 2022 5. Roulet J.-F., Vanherle G. – Adhesive Technology for Restorative Dentistry			
8.2 Seminars/ Laboratory/practical activity/ projects	Teaching-learning, methods	Number of hours	Notification
1. Introductory stage. Presentation of specific instruments minimally invasive techniques.	<b>LECTURE+ DEBATE + STUDIES - PRESENTATIONS</b>  <ul style="list-style-type: none"><li>• Oral lecture, interactive Powerpoint presentations;</li><li>• Powerpoint presentations with suggestive images and tables;</li><li>• Case reports</li></ul>	1	
2. Preparation of cavities for minimally invasive restoration to DRC.		1	
3. preparation of abutment teeth for restoration with RPFA in the anterior area.		1	
4. Preparation of abutment teeth for restoration with RPFA in the posterior area.		1	
5. Preoperative assessment in minimally invasive dentistry. Mock-up/ Wax-up.		1	
6. Tooth preparation for restoration with porcelain veneers.		1	
7. Restoration of tooth by direct bonding technique DRC.		1	
8. Minimally invasive techniques in solving diastema.		1	
9. Closing a single tooth edentation using direct / combined techniques in anterior area.		1	
10. Closing a single tooth edentation using direct / combined techniques in posterior area.		1	
11. Preparation of abutment teeth to restore a single tooth edentation by RPF on inlays.		1	
12. Closing a small edentulous space using RDC.		1	
13. Special systems maintenance, support and stabilization stitched adhesive.		1	
14. Overlay preparation.		1	
<b>Mandatory references:</b> 1. Shillingburg HT – Fundamentals of fixed prosthodontics (the 4th edition), Quintessence, 2012. 2. Rosenstiel SF – Contemporary fixed prosthodontics (the 6th edition), Elsevier, 2022. 3. Hasan Sarfaraz – Minimally Invasive Fixed Prosthodontics, LAP, 2022 4. Irfan Ahmad – Prosthodontics at a Glance (the 2nd edition), Wiley, 2022 5. Roulet J.-F., Vanherle G. – Adhesive Technology for Restorative Dentistry			

## 9. Correlations between the content of the course and the requirements of the professional field and relevant employers

The student is familiarised with the basic notions and concepts in minimally invasive dentistry, classifications, armamentarium, clinical and technical steps, that will serve later on in clinical practice. As a result, the student will gain useful information and clinical skills, in accordance with the current demands in the field of dentistry, meeting the educational standards imposed by EU.	
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## 10. Assessment

Activity	10.1 Assessment criteries	10.2 Assessment methods	10.3 Percentage of the final
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			grade
10.4 Course	<i>Knowledge for grade 5 60% +1 Knowledge for grade 10 95% +1</i>	<i>Final evaluation: Colocviu</i>	50%
10.5 Practical activity/ seminar	<i>Knowledge for mark 5: Knowledge for mark 10: Case studies. Discussion.</i>	<i>Final evaluation:</i>	50%
10.6 Minimum performance standard-basic knowledge			

Date	Signature of the course holder	Signature of the laboratory/seminar holder
17.11.2023		
Signature of the Head of Discipline		
Date of approval in the Department	Signature of the Head of Department	

- 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 de ore de studiu (activități didactice și studiu individual).

\*nr de ore de studiu individual (punctul 3.7.) = nr total ore (nr credite X 25) minus nr. ore din planul de învățământ (punctul 3.4) minus ore alocate pentru examinări. Aceste ore se împart între

Studiul după manual, suport de curs, bibliografie și notițe	
Documentare suplimentară în bibliotecă, pe platformele electronice de specialitate și pe teren	
Pregătire seminarii/ laboratoare/ proiecte, teme, referate, portofolii și eseuri	
Tutoriat	

- 6) Pentru specializările și/sau disciplinele a căror tematică se regăsește în bibliografia de rezidențiat, aceasta devine obligatorie. Dintre titlurile bibliografice, 50% trebuie să fie din ultimii 5 ani.