"Carol Davila" University of Medicine and Pharmacy Bucharest
Quality Assurance Committee

DISCIPLINE FILE

1. Data about the programme

1.1.	"CAROL DAVILA" UNIVERSITY OF MEDICINE AND PHARMACY BUCHAREST
1.2.	FACULTY OF DENTISTRY
1.3.	DEPARTMENT III
1.4.	DISCIPLINE RESTORATIVE ODONTOTHERAPY II
1.5.	DOMAIN OF STUDY: HEALTH – Sectorally regulated within the European Union
1.6.	STUDY CYCLE: LICENCE
1.7.	STUDY PROGRAME: DENTAL MEDICINE (ENGLISH)

1. Data about discipline

2.1.	Name of the discipline in the educational plan: RESTORATIVE ODONTOTHERAPY II				
2.2.	Discipline code: MD04S01EN				
2.3.	Discipline type (FD/SD/CD): SD				
2.4.	Discipline regimen (MD/OPD/): MD				
2.5.	The holder of the course activities: Prof. Dr. Dana Bodnar, Associate Professor Dr. Marcov Narcis, Associate Professor Dr. Cristina Marcov, Lecturer dr. Mărgărit Ruxandra, Lecturer dr. Perieanu Mădălina				
2.6.	The holder of the seminar activities: Prof. dr. Dana Bodnar, Associate Professor dr. Marcov Narcis, Associate Professor dr. Cristina Marcov, Lecturer dr. Mărgărit Ruxandra, Lecturer dr. Perieanu Mădălina, asist.dr. Stamate Andrei, asist.dr. Budei Roxana				
2.7. Year of study	IV	2.8. Semester	VII	2.9. Evaluation (E/C/V)	Exam

3. Total estimated time (hours/semester of didactic activity an self preparation/study

I. Academic training (teaching, practical application, assessment)						
3.1. Number of hours per week	6 hours	from which:	3.2. lecture	2 hours	3.3. seminary/ laboratory	4 hours
3.4. Total hours in the study curriculum	84 hours	from which:	3.5. lecture	28 hours	3.6. seminary/ laboratory	56 hours
Evaluation (nr. of hours) : 2 hours						
II. Self preparation/study						
Time allocation						hours
Study of course materials, textbooks, books, study of the recommended minimal bibliography						30
Additional research in the library, research through the internet						10
Performing specific activities for preparing projects, laboratories, elaborating reviews or other tasks						5
Specific preparation activities for projects, laboratory work, assignments, and reports						11
Tutoring						5
Other activities						5
3.7. Total individual study hours						66
3.8. Total hours per semester (3.4.+3.7.)						150

3.9. Number of credits	5

4. Preconditions (where applicable)

4.1. of curriculum	The students need to have knowledge of: - anatomy of the teeth and structure of the dental tissues - dental propedeutics and dental materials - cariology and restorative dentistry - fixed prosthodontics and occlusiology
4.2. of competences	The students have to know: - composite and ceramic biomaterials used in teeth restorations - techniques of using biomaterials - segmental and total impression techniques - management of the patient

5. Conditions (where applicable)

5.1. to conduct the lecture	Amphitheatres, lecture halls with minimum 75 seats, projector, projection screen/smart board, personal computer, speakers, Internet connection
5.2. to conduct the seminar / laboratory	Dental offices, larger rooms with multiple dental units, desks, chairs, screen, specific instruments and materials for restorative dentistry

6. Learning outcomes*

Knowledge	Skills	Responsibility and autonomy
The student accumulates, describes, analyzes and evaluates specialized knowledge regarding the structure of dental hard tissues, carious and non-carious pathology of teeth, diseases of oral cavity tissues, as well as the principles of detection, diagnosis and treatment of carious and non-carious lesions specific to restorative dentistry through classical or digital methods/techniques.	The student acquires and proves specialized clinical experience under appropriate supervision. Gradually, during the years of study, he performs practical and clinical tasks necessary to ensure the specific professional competencies (knowledge, skills and abilities) of restorative dentistry - the restorative treatment of carious and non-carious lesions.	The student integrates and applies specialized skills necessary for the prevention, diagnosis and treatment activities regarding dental diseases of carious and non-carious causes; The student evaluates, analyzes, differentiates, estimates, interprets and uses the information, knowledge, skills and responsibilities accumulated during the years of study in order to obtain the necessary skills to practice the profession of dentist.

7. Course objectives (aligned with the learning outcomes)

7.1. General objective	The students' knowledge of the basic notions that define the field of cariology and restorative dentistry, the etiology and clinical aspects of the simple dental caries, as well as the therapeutic approach strategies (means for prophylaxis and treatment itself)
7.2. Specific objectives	- Comprehension of the etiology, clinical aspects and signs, treatment procedures of the non-carious lesions: wear (attrition, biochemical wear, abrasion), traumatic injuries, discolorations, developmental defects) - Apprehension of the modern detection and diagnosis and modern management of the carious disease (detection, diagnosis, ICDAS codes, CAMBRA protocols, non-invasive and minimally invasive principles and procedures) and knowledge of the unconventional methods of tooth preparation (sono abrasion, air abrasion, laser, etc.)

	- Comprehension and practical apprehension of the dental restorative methods: conventional methods and techniques - Knowledge of evaluation, monitoring and adjustment of an old restoration, as well as the possibilities of mending the deficiencies - Knowledge of dental discolorations: etiology, clinical aspects, methods of treatment: dental bleaching, direct/indirect ceramic/composite veneers - Apprehension of the theoretical and practical notions for additional conservative aesthetic procedures (correction of diastemas, of shape and dimension of the teeth, etc.) - Comprehension of the theoretical and practical notions of the infection control procedures in the dental office (protection of the pacients, practitioners and auxilliary staff, aseptic/antiseptic means, decontamination of instruments and surfaces, handling of the waste, etc.).

8. Contents

8.1. Lecture	Teaching methods	Observations
1. Carious lesions. Clinical aspects, teeth assessment and dental health record. Principles of tooth preparation.	Multimedia- based oral, interactive presentations, power-point presentations	2 hours
2. Non-carious lesions. Clinical aspects, teeth assessment and dental health record.		2 hours
3. Direct tooth colored restorative materials. Notions of dentin's sealing and protection of the pulp		2 hours
4. Direct treatment protocol of cavitated pit and fissure caries		2 hours
5. Direct treatment protocol of cavitated proximal caries of posterior teeth (I)		2 hours
6. Direct treatment protocol of cavitated proximal caries of posterior teeth (II)		2 hours
7. Direct treatment protocol of cavitated proximal caries of anterior teeth		2 hours
8. Direct treatment protocol of cavitated cervical caries and cavitated caries associated to non-carious loss of hard tissue		2 hours
9. Treatment protocol of dental traumatic injuries		2 hours
10. Treatment protocol of discolorations		2 hours
11. Treatment protocol of the wear		2 hours
12. Treatment protocol of the developmental defects		2 hours
13. Iatrogenesis in direct restorative dentistry		2 hours
14. Infection control procedures in the dental office: aseptic/antiseptics means, decontamination of instruments and surfaces, enviromental infection control, waste management: safe handling of the infectious waste, protection of the patients and practitioners		2 hours

Recent bibliography:

1. Manual pentru rezidențiat volumul I, sub redacția Prof.dr. Ecaterina Ionescu, Editura Universitară "Carol Davila" București, 2021
2. Note curs predat - suport teoretic pt. cursul disciplinei
3. E.C. Marcov, D.C.Bodnar, N. Marcov Manual de Odontoterapie Restauratoare. Protocoale de tratament al leziunilor coronare, Editura Universitară "Carol Davila" București, 2020
4. Manual de Odontoterapie Restauratoare (vol.II): Instrumentar utilizat în odontoterapia restauratoare. Marcov E.C. (coord.); Ed. Ars Docendi – Universitatea din Bucureşti, 2012.
5. Prevenirea şi controlul transmiterii infecţiilor în cabinetul de medicină dentară. Marcov N.; Ed. Cermaprint, Bucureşti, 2006.

<table>
<tr><td colspan="3">6. Carlos Rocha Gomes Torres, Modern Operative Dentistry: Principles for Clinical Practice, Springer International Publishing, 2020
7. Sturdevant's Art and Science of Operative Dentistry" Eight edition, Andre V. Ritter, Lee W. Boushell, Ricardo Walter; Editura Elsevier, 2025
8. Dental caries : the disease and its clinical management, edited by Ole Fejerskov, Bente Nyvad, Fourth edition. Wiley-Blackwell, 2025</td></tr>
<tr><th>8.2. Laboratory/ practical lesson</th><th>Teaching methods</th><th>Observations</th></tr>
<tr><td>1. Conventional vs. modern treatment methods of the carious/non-carious lesions, overview of the minimally invasion techniques in restorative dentistry (hands-on demonstration and practical session on training casts/extracted teeth/patients)</td><td rowspan="10">- Presentation (oral/power-point presentation)
- Practical demonstrations of the clinical maneuvers on dental teaching- training casts/phantom manikin heads for dental education/patients
- Clinical demonstrations on patients of the prophylaxis and curative maneuvers provided by the curriculum
- Colloquies, essays
- Periodical assessment tests (oral examinations/ written quizzes/multiple choice questions)</td><td>4 hours</td></tr>
<tr><td>2. Materials in the restorative treatments (liners, bases, restorative materials):composition,preparation /application techniques (hands-on demonstration and practical session on training casts)</td><td>4 hours</td></tr>
<tr><td>3. Moisture control methods for anterior and posterior teeth (hands-on demonstration and practical session on training casts)</td><td>4 hours</td></tr>
<tr><td>4. Oral clinical assessment and the oral health record's filling</td><td>4 hours</td></tr>
<tr><td>5. Class I preparations for adherent materials: tooth preparation/dentin's sealing and pulp protection :materials, instruments, techniques of application/restorative materials: presentation, techniques of application (hands-on demonstration and practical session on training casts/patients)</td><td>4 hours</td></tr>
<tr><td>6. Class II preparations for adherent materials: types of tooth preparation (horizontal slot, tunnel, vertical slot, class II modified preparation for adherent materials)/dentin's sealing and pulp protection :materials, instruments, techniques of application/restorative materials: presentation, techniques of application (hands-on demonstration and practical session on training casts/patients)</td><td>4 hours</td></tr>
<tr><td>7. Class III preparations for adherent materials: tooth preparation/dentin's sealing and pulp protection :materials, instruments, techniques of application/restorative materials: presentation, techniques of application (hands-on demonstration and practical session on training casts/patients)</td><td>4 hours</td></tr>
<tr><td>8. Class IV preparations for adherent materials: tooth preparation/dentin's sealing and pulp protection :materials, instruments, techniques of application/restorative materials: presentation, techniques of application (hands-on demonstration and practical session on training casts/patients)</td><td>4 hours</td></tr>
<tr><td>9. Class V preparations for adherent materials and class VI: tooth preparation/dentin's sealing and pulp protection: materials, instruments, techniques of application/restorative materials: presentation, techniques of application (hands-on demonstration and practical session on training casts/patients)</td><td>4 hours</td></tr>
<tr><td>10. Pin-retained restorations (hands-on demonstration and practical session on training casts/patients)</td><td>4 hours</td></tr>
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11. Direct veneers of the anterior teeth (hands-on demonstration and practical session on training casts)(I)		4 hours
12. Direct veneers of the anterior teeth (hands-on demonstration and practical session on training casts/patients)(II)		4 hours
13.Vital teeth bleaching:materials, instruments, methods' techniques (hands-on demonstration and practical session on training casts)(I)		4 hours
14.Vital teeth bleaching:materials, instruments, methods' techniques (hands-on demonstration and practical session on training casts/patients)(II)		4 hours

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5. Prevenirea şi controlul transmiterii infecţiilor în cabinetul de medicină dentară. Marcov N.; Ed. Cermaprint, Bucureşti, 2006.
6. Carlos Rocha Gomes Torres, Modern Operative Dentistry: Principles for Clinical Practice, Springer International Publishing, 2020
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9. Evaluation

Activity type	9.1. Evaluation criteria	9.2. Evaluation methods	9.3. Percentage of final grade
9.4. Lecture	Final theoretical examination	Written (written essays on several, different topics– and/or multiple choice questions) from the contents of the lecture in order to evaluate the level of accomplishment/understanding of the theoretical data and the student's way of thinking. Knowledge for mark 5: -apprehension of the specific medical terms and their correct use in context; -comprehension of the basic information proving passing through all the subjects to be learned; - the answers are not to have serious errors. Additional knowledge for mark 10: -apprehension of the specific medical terms and their correct use in context; -comprehension of the basic information in order to prove passing through all the subjects to be learned; -very good comprehension of essential knowledge of all the lectures of the disciplines, as well as of those belonging to the other bibliographical references; -ability of explanation and interpretation of the contents of the specific notions of the discipline in a multidisciplinary (general medicine and dental	70%

		disciplines) approach; - all the questions are to have correct answers.	
9.5. Seminary/ practical activity	Periodical assessment tests (oral examinations/ written quizzes/multiple choice questions)	Assessment of the theoretical and practical necessary notions according to the stage of the clinical session. The assisstant professor/lecturer will appreciate the student's attitude during the internship (frequency of presence, punctuality, attire, attitude towards the patients and the auxiliary staff). Frequency:weekly	30%
	Periodical assessments: Evaluation papers	Written evaluation papers (written essays or multiple choice questions). Frequency: twice/semester (during the laboratory sessions, on series of groups).	
	Periodical assessment: Practical examination	Practical test performed by the students on training casts and oral examination for verifying the correct assessment of the dental instruments, materials and techniques tought during the laboratory sessions. Frequency: at the end of the laboratory session, at the end of the semester.	
9.5.1. Individual project (if any)			

Minimum performance standard

At the end of the 7th/8th semester of the IVth year of study, the students have to know the necessary information concerning:
- detection and positive/differential diagnosis of the carious and non-carious dental lesions
- the minimally invasive techniques' principles and the modern, individualized management of the carious disease according to the patient's carious risk assessment
- apprehension, understanding and application of the classic and modern principles of restorative treatment of the carious/non-carious lesions using direct/semidirect/indirect techniques
- ability of using and adapting the theoretical and practical knowledge to the clinical reality in order to develop a complex treatment plan of the carious/non-carious lesions
- abilities of choosing correct approaches of the clinical situations with individualized/specific treatment plans according to the general and oral features of the clinical cases and with close and sharp monitoring/evaluation as time passes by till healing/stabilization of the disease

Date of completion: 20.07.2026 **Signature of the course holder** **Signature of the laboratory holder**

Date of approval by the Department Council: 06.11.2026

Signature of the Department Director
Professor Ionescu Ecaterina, PhD