



**“CAROL DAVILA” UNIVERSITY
OF MEDICINE AND PHARMACY BUCHAREST**
Faculty of Dentistry
Dental Medicine in English



DISCIPLINE GRID

1. Programme

1.1.	CAROL DAVILA UNIVERSITY OF MEDICINE AND PHARMACY BUCHAREST
1.2.	FACULTY OF DENTISTRY / 3rd DEPARTMENT
1.3.	Division: RESTORATIVE ODONTOTHERAPY
1.4.	Study domain: Healthcare, sectoral regulated within European Union
1.5.	Study level: BACHELOR'S DEGREE
1.6.	Study programme: DENTAL MEDICINE IN ENGLISH

2. Discipline

2.1.	Discipline name: RESTORATIVE ODONTOTHERAPY I						
2.2.	Location: Calea Plevnei nr.17-21, etaj 1, sector 1 București						
2.3.	Lectures tenure: Prof. dr. Dana Bodnar, Assoc. Prof. dr. Narcis Marcov, Assoc. Prof. dr. Irina Gheorghiu, Senior Lecturer dr. Cristina Marcov						
2.4.	Practical classes tenure: Assoc. Prof. dr. Narcis Marcov						
2.5. Study year	III	2.6. Semester	V	2.7. Evaluation	Exam	2.8. Type of discipline	CD/SD

3. Estimated total time (hours/semester)

No. hours/week	6 hours	Out of which:	Lecture: 2	Laboratory session: 4
Total hours out of learning schedule	84 hours	Out of which:	Lecture: 28 hours	Laboratory session: 56 hours

Time distribution		hours
Textbook study, lecture support, bibliography and notes		20
Supplementary documentation activity in the library, on online platforms		10
Practical activity support material, homework, portfolio and essays		15
Tutorial activity		6
Examinations		10
Other activities		5
Total hours of individual study		66
Total hours/semester		150
Number of credits		6

4. Preconditions (where it is necessary)

4.1. curriculum	The students need to have knowledge of: <ul style="list-style-type: none"> - biochemistry, biophysics, histology, physiology - anatomy of the teeth and structure of the dental tissues - dental propedeutics and dental materials
4.2. proficiencies	

5. Conditions (where applicable)

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

5. Accumulated skills

Professional abilities (knowledge and skills)	<p>Aquired abilities of the students:</p> <ul style="list-style-type: none"> - Comprehension about the structure of the tooth/periodontium and etiology and pathogenesis of dental caries - Notions about the clinical signs and aspects of the dental caries, means for diagnosis and proper choice of the treatment plan using the modern minimally invasive procedures - Comparative knowledge of the traditional and modern treatment of the simple dental caries: conventional methods and techniques according to Black's classic theory vs. the modern adhesion to enamel and dentin based procedures - Knowledge of the means of detection and diagnosis of the dental lesions - Comprehension of the physical and chemical properties of the dental materials and their influence over the clinical outcome - Apprehension of choosing the right treatment plan through the correct adjustment of the theoretical notions to the features of the clinical reality (case) - Notions about the adaptation of the correct theoretical treatment plan to the patient's general and oral particularities
Transversal abilities (role, professional and personal development)	<ul style="list-style-type: none"> - Identification of the achievable objectives, the available resources, the accomplishing conditions, the working steps and time intervals, the allocated deadlines and the associated risks - Identification of the roles and responsibilities in a multidisciplinary team and the management of the proper relationship techniques within the team and in regard to the patient - The efficient use of the information, communication and assisted professional training resources

7.Objectives (based on the grid of aquired specific skills)

7.1. General objectives	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	<ul style="list-style-type: none"> - Comprehension of the structure and role of the hard dental tissues with reference to the modern restorative approaches - Apprehension of the multifactorial features of the simple dental caries' disease with regard to ways of individual planing of fighting with the causes - Comprehension of the epidemiological issues of the carious disease and of the prophylaxis methods - Understanding of the importance of the reversible aspects of the demineralization of the enamel and the accomplishment of the noninvasive treatment procedure of the non-cavitated caries - Apprehension of the morphological and clinical aspects and signs of the simple dental caries, knowledge of the elements of positive and differential diagnosis - Aquiring of information regarding the methods for detection and diagnosis of the carious and non-carious dental lesions - Comprehension of the biological trend of the modern treatment of cavitated caries regarding the modified approach of removing highly infected and affected dentin and the specific ways for the dentin's sealing and protection of the pulp - Knowledge of the classical and modern ways of treatment of the simple caries by apprehension of the Black's principles methods and of the modern adhesion based to hard dental tissues aesthetic procedures - Knowledge of the features and use of the dental instruments, materials and direct restoration techniques with adherent and nonadherent materials - Practical skills of accomplishing a direct, adherent or non-adherent, correct restoration

8.Contents

8.1. Lectures: Sem. 5 (Series 1, 2) / Sem. 6 (Serie 3)	No. hrs/topic	Teaching method	Obs.
1. Infection control procedures in the dental office: universal and additional regulations	2	Multimedia- based oral, interactive presentation, power-point presentations	
2. The structure of the hard dental tissues (enamel, dentin, cementum): topographic features, physical and chemical properties, specific structures, clinical connections	2		
3. Etiology and pathogenesis of the simple dental caries: classical and modern theories, the quality features of the hard dental tissues, oral liquid, dental bacterial biofilm and oral metabolic substrate	2		
4. The histopathological features of enamel, dentine and cementum simple caries. The dentin-pulp complex – clinical implications	2		
6. The clinical aspects and characteristics of the carious lesions	2		
7. The clinical aspects and characteristics of the non-carious lesions	2		
8. Detection methods of the dental lesions	2		
9. The diagnosis of the dental lesions- primary and recurrent carious lesions, non-carious lesions	2		
10. Fundamentals of the clinical treatment of the simple carious lesions: treatment plan, specific terms, the classification of the cavities, principles and stages of the tooth's preparation	2		
11. The tooth's conventional and minimally invasive preparation for cavities. Alterations of the conventional excavation protocol in order to use adherent materials.	2		
11. Noninvasive and microinvasive treatment protocol of the carious and non-carious lesions.	2		
12. Methods of minimally invasive surgical treatment. The disinfection of the cavities.	2		
13. Classification of the coronal restorative materials. Interim restorative materials. Adherent restorative materials (features and clinical implications)	2		
14. Dentin's sealing and protection of the pulp: the characteristics of dentin's surface, the classic and modern treatment procedures. Fundamentals of enamel and dentin adhesion.	2		

8.2. Clinical session	No. hrs/topic	Teaching method	Obs.
1. Overview of restorative dentistry, treatment fundamentals of the cavitated caries (general rules, theoretical principles, working steps and objectives)	4	-Presentation (oral/power-point presentation)	
2. Overview of the dental instruments and equipment for exploring, tooth preparation and restoration, ergonomics data, instructions for use of the dental unit. Overview of the main treatment steps: surgical, dentin's sealing and protection of the pulp and restorative.	4	-Practical demonstrations of the clinical maneuvers on dental teaching- training casts/phantom manikin heads for dental education/patients	
3. Presentation of the hand and rotary cutting instruments for tooth preparation and restoration. Demonstration of the patient and operator positions, of the instrument exchange between operator and assistant, hands-on demonstration of the treatment techniques using different instruments	4	-Clinical demonstrations on patients of the prophylaxis and curative maneuvers	
4. Presentation of class I and VI conventional tooth preparations and the specific hand/rotary cutting instruments. Tooth preparation-hands-on demonstration and practical session on training casts	4		

5.Presentation of class II conventional tooth preparations and the specific hand/rotary cutting instruments. Tooth preparation-hands-on demonstration and practical session on training casts	4	provided by the curriculum - Colloquies, essays -Periodical assessment tests (oral examinations / written quizzes/multiple choice questions)	
6. Presentation of class III/IV conventional tooth preparations and the specific hand/rotary cutting instruments. Tooth preparation-hands-on demonstration and practical session on training casts	4		
7.Presentation of class V conventional tooth preparations and the specific hand/rotary cutting instruments. Tooth preparation-hands-on demonstration and practical session on training casts	4		
8.Patient assessment, examination, diagnosis and treatment planning and the oral record filing	4		
9.Moisture control methods (instruments and techniques). Hands-on demonstration and practical session on training casts	4		
10.The presentation of the interim materials. Hands-on demonstration and practical session on training casts.	4		
11.Methods for dentin's sealing and protection of the pulp (instruments and techniques). Hands-on demonstration and practical session on training casts	4		
12.Presentation of the restorative dental materials. Hands-on demonstration and practical session on training casts	4		
13.Instruments and techniques of the restorative methods.Hands-on demonstration and practical session of applying liners/bases/cements/other restorative materials on training casts	4		
14. Attendance recovery (tooth preparation session) and final recap.	4		

8.3. Bibliography for lectures and laboratory/practical sessions

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.I): Cariologie. Popa M.B., Bodnar D.C., Vârlan C.M.; Ed. Univ. "Carol Davila" București, 2007.
5. Manual de Odontoterapie Restauratoare (vol.II): Instrumentar utilizat în odontoterapia restauratoare. Marcov E.C. (coord.); Ed. Ars Docendi – Universitatea din București, 2012.
6. Prevenirea și controlul transmiterii infecțiilor în cabinetul de medicină dentară. Marcov N.; Ed. Cermaprint, București, 2006.
7. Carlos Rocha Gomes Torres, Modern Operative Dentistry: Principles for Clinical Practice, Springer International Publishing, 2020
8. Sturdevant's Art and Science of Operative Dentistry" Andre V. Ritter, Lee W. Boushell, Ricardo Walter; 7th ed., Mosby Elsevier Inc., 2019
9. Fejerskov, O., Nyvad, B. & Kidd, E. Dental Caries: The Disease and Its Clinical Management , 3rd Edn. Oxford, Wiley Blackwell, 2015
10. Summit's Fundamentals of Operative Dentistry: A Contemporary Approach" Hilton T.J., Ferracane J.L., Broome J.; 4th ed., Quintessence Pub. Co. Inc., Chicago, Berlin, London, 2013.

Journals (optional)

1. Operative Dentistry
2. Quintessence International
3. Journal of Adhesive Dentistry

9.Corroboration of the contents of the discipline with the expectations of the epistemic community representatives, professional associations and employers in the fields representative for the programme

The content of the discipline is compatible to the other homologous disciplines' curriculum from the other Romanian or foreign university centers, being in a constant development and improvement according to the new findings in the field. Opinion polls have been conducted among the students, for a better adaptation to the labor market. The results drove to the conclusion that the discipline has to lay the stress on the development of the possibilities for practical activity.

10.Evaluation

Activity type	Evaluation Criteria	Methods of evaluation	Percentage (%) out of final grade
Lecture	Knowledge for mark 5: -apprehension of the specific medical terms and their correct use in context; -comprehension of the basic information proving the 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 disciplines) approach; - all the questions are to have correct answers.	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.	70%
Laboratory (clinical) sessions	Periodical assessment tests (oral examinations/ written quizzes/multiple choice questions) Knowledge for mark 5: - knowledge of theoretical and practical concepts relevant to the stage of the traineeship Additional knowledge for mark 10: - acquiring the basic notions that demonstrate the progress of the subject - all the questions are to have correct answers. Periodical assessments: Evaluation papers	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). Written evaluation papers (written essays or multiple choice questions).Frequency: twice/semester (during the laboratory sessions, on series of groups).	15%

	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 taught during the laboratory sessions. Frequency: at the end of the laboratory session, at the end of the semester.	15%
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Minimum performance standards

At the end of the 5th/6th semester of the III year of study, the students are to know the necessary information concerning:

- comprehension and understanding of the carious disease as having a multifactorial etiology
- comprehension and understanding of the methods of detection and diagnosis of the dental lesions
- comprehension, understanding and practice of the principles and methods of conventional and modern treatment of the simple dental caries
- knowledge of the features and use of the essential instruments, techniques and materials involved in the treatment methods of the restorative dentistry

Date:

20.08.2024

Chair of Restorative Odontotherapy Division

Prof. Univ. Dr. Dana Bodnar

Date of approval in

Department Board:

Department Director

Prof. Univ. Dr. Ecaterina Ionescu