



MEDICAL UNIVERSITY
“PROF. DR. PARASKEV STOYANOV” - VARNA
FACULTY OF DENTAL MEDICINE



Approved:

DEAN:

/ Assoc. Prof. Georgi Papanchev, DMD, PhD/

EDUCATIONAL PROGRAMME

of

“Conservative dentistry – Propaedeutics and Clinics“

Specialty “DENTAL MEDICINE”

Educational-qualification degree “MASTER”

Professional qualification: “PHYSICIAN IN DENTAL MEDICINE”

	Semester	Horarium weekly	Total horarium
Lectures	IV,V,VI	1/2/1	60
	VII,VIII,IX,X	1/1/1/1	60
Exercises	IV,V,VI	1/3/4	120
	VII,VIII,IX,X	5/5/5/5	300
Total			540
Monitoring and evaluation forms	Current control		Exam: VI semester / X semester
Credits (ECTS)		4+5+3	12+
		6+5+5+8	24=36

Lecturers: Prof. Dr. Vladimir Panov, DMD, PhD, DSc

Assoc. Prof. Dr. Tsvetelina Borisova, DMD, PhD

Assoc. Prof. Dr. Maya Doychinova, DMD, PhD

Varna, 2026

ANNOTATION:

Conservative dentistry course gives the opportunity to acquire knowledge and competences in operative dentistry and endodontics which are necessary for organizing and carrying out a successful dental help.

Conservative Dentistry is a discipline encompassing the operative and restorative treatment of carious and non-carious defects of the hard dental tissues, including both operative dentistry and endodontics.

Operative dentistry is concerned with the diagnosis, treatment, and prevention of carious and non-carious diseases affecting the hard dental structures.

Endodontics focuses on the diagnosis, treatment, and prevention of diseases of the dental pulp and the periodontium.

During the course, students acquire theoretical knowledge and practical skills related to the etiology, pathogenesis, clinical features, diagnosis, treatment, and primary and secondary prevention of diseases affecting the hard dental tissues, dental pulp, and periodontium.

The educational process is conducted through lectures lasting two academic hours (2×45 minutes), seminars of up to one academic hour, and practical training sessions on simulators and patients, with a duration of four to six academic hours per week.

Upon successful completion of the course, students are required to pass semester and state examinations.

The semester examinations in preclinical and clinical conservative dentistry consist of both practical and theoretical components.

The state examination in Conservative Dentistry is theoretical.

AIM OF THE CURRICULUM

Operative dentistry provides theoretical knowledge and practical skills related to the diagnosis, treatment, and prevention of carious and non-carious diseases of the hard dental tissues in the adult population.

Endodontics provides theoretical knowledge and practical skills related to the diagnosis, treatment, and prevention of diseases affecting the dental pulp and periodontium.

The acquired competencies ensure the organization and delivery of dental care in accordance with European standards of healthcare provision.

TEACHING AIDS AND EDUCATIONAL RESOURCES

Multimedia presentations, educational films, diagrams, models, tests, clinical assignments, seminar sessions, colloquia, and discussions of clinical cases are used as teaching and learning resources.

PREREQUISITES

Prior to commencing training in Conservative Dentistry, students are required to possess fundamental knowledge in anatomy, histology, physiology, genetics, biology, pathological anatomy, pathophysiology, physics, biophysics, chemistry, biochemistry, pathobiochemistry, microbiology, pharmacology, dental materials science, and related disciplines.

FORMS OF INSTRUCTION, ASSESSMENT AND EVALUATION

The education and training of students comply with and adhere to contemporary methods of teaching and assessment of academic achievement.

An organizational framework has been established for the maintenance and continuous development of modern approaches to teaching theoretical content, conducting practical training sessions, and evaluating student performance.

Students who successfully complete the course of study in the Department of Conservative Dentistry acquire:

1. Fundamental knowledge of the biological basis of diseases affecting the hard dental tissues and the endodontium.
2. Knowledge regarding the materials, medications, devices, and instruments used in operative dentistry and endodontics.
3. Competencies and contemporary methods for the diagnosis of diseases affecting the hard dental structures and the endodontium, as well as their complications.
4. Knowledge of the theoretical and practical aspects of treatment methods for the management of diseases of the hard dental tissues, the endodontium, and their complications.
5. Knowledge of the methods and means for protecting both patients and healthcare personnel from infectious diseases.
6. The necessary competencies for seeking and providing consultative professional assistance.

EXPECTED LEARNING OUTCOMES

Upon completion of the course, students are expected to know and be able to:

- diagnose diseases of the hard dental structures and the endodontium, as well as their complications;

- understand and use the principal diagnostic and therapeutic equipment;
- develop treatment plans for patients with diseases of the hard dental tissues and the endodontium;
- demonstrate clinical reasoning skills enabling analysis and synthesis of patient-related data;
- perform and monitor the necessary treatment procedures, including anesthesia, isolation of the operative field, cavity preparation, restoration with aesthetic and non-aesthetic restorative materials, cleaning and obturation of root canals, root-end resection, restoration of teeth with extensive destruction of the clinical crown, and recognition of non-odontogenic findings and conditions mimicking odontogenic diseases.

GRADING AND ASSESSMENT

Comprehensive student assessment is based on:

- demonstrated theoretical knowledge throughout the course, reflected in continuous theoretical assessment, semester examinations, and the state examination;
- practical skills acquired during the semesters, reflected in ongoing practical assessment and the “Practical Examination” component of the semester examinations;
- the level of participation and engagement during semester training.

ASSESSMENT CRITERIA

The following aspects are considered in the grading process:

- specific knowledge and active participation in discussions in both preclinical and clinical settings, as well as during seminars;
- minimum required volume and quality of diagnostic and therapeutic activities performed;
- results from the practical examination;
- results from theoretical examinations (test-based, written, and oral).

Analysis and Publication of Results Related to Teaching and Assessment Methods

Student achievement is periodically analyzed and evaluated.

At the beginning of each academic year, a report on the educational activities of the Department is adopted. The report includes a table outlining the teaching workload of both tenured and non-tenured academic staff during the preceding academic year.

Assessment Criteria

Grading System: Comprehensive assessment

- Evaluation of student participation and performance during practical training sessions;
- Colloquim
- Examination results obtained during the examination session.

Components of the Assessment: Comprehensive

- Test assessment graded as follows: Satisfactory (correct answers between 50%–60%), Good (60%–80%), Very Good (80%–95%), and Excellent (more than 95% correct answers).
- Assessment of practical clinical work performed on patients.
- Examination result during the examination session, consisting of:
 - a written test,
 - a practical examination involving patient treatment,
 - a written examination based on one examination question,
 - and an oral examination based on one examination question.

The semester examination test is administered as a eliminatory (“stop”) test and contains between 30 and 40 questions. In order to proceed with the remaining components of the examination, the student must achieve at least a Satisfactory grade (3), corresponding to more than 50% correct answers.

State Examination

The state examination is conducted by a committee consisting of three habilitated academic staff members. The examination is entirely theoretical in nature.

The syllabus and examination tickets include approximately ten questions related to Dental Physiotherapy.

PLAN OF TOPICS OF LECTURES AND PRACTICAL CLASSES

Lectures

№	II course, IV semester	Hours
1.	Object, aim and tasks of conservative dental medicine phantom course. Dental caries - process main point and classification. Treatment methods. Basic principles of dental caries treatment by means of restoration. First basic principle. Types of cavities. Basic cavity elements. Requirements for cavity design.	2
2.	Cavity preparations principles. Practical application of cavity preparation basic principles – stages of cavity preparation.	2
3.	Dental amalgam – types of alloys, composition, chemical	2

	reactions.	
4.	Cavity preparation for dental amalgam – part I. I class cavity preparation – indications, basic design. Characterization of basic cavity configurations. Preparation techniques.	2
5.	Cavity preparation for dental amalgam – part II. II class cavity preparation – indications, basic design. Characterization of basic cavity configurations. Instruments and preparation techniques.	2
6.	Cavity preparation for dental amalgam – part III. Class V cavity preparation – indication, basic design. Characterization of basic cavity configurations. Instruments and preparation techniques.	2
7	Revision of lectures 1 to 7.	3
	Total	15

№	<u>III course, 5 semester</u>	Hours
1.	Aesthetic restorative materials – groups, composition, physico-chemical properties.	2
2.	Cavity preparation for aesthetic restorative materials – III and IV class cavities - indications, basic design, instruments and preparation techniques.	2
3.	Cavity preparation for aesthetic restorative materials – I, II and V class cavities - indications, basic design, instruments and preparation techniques.	2
4.	Pins – indications, groups, biomechanical and anatomical application aspects. Placement technique.	2
5.	Second basic principle of caries treatment by means of restoration (operative caries treatment) – main point (essence), application reasons, medicines, pharmacodynamics, application technique. Temporary restorations – groups, requirements, critical analysis, application indications.	2
6.	Third basic principle of operative caries treatment – main point. Clinical requirements towards restorative materials. Application indications and contraindications. Dressing (lining) and base materials – groups, biomechanical requirements, placement technique and basic configurations.	2
7.	Restoration contours and interdental contacts.	2

8.	Revision of lectures 1 to 7.	3
9.	Instruments and placement technique for amalgam restorations.	2
10.	Cast restorations – cavity preparation characteristics. Instruments, preparation and clinical techniques for direct and indirect cast inlays – impressions, fitting and cementation.	2
11.	Instruments and placement techniques for aesthetic material restorations.	2
12.	Pulp chamber and root canal (endodontium) – definition. Three-dimensional anatomy. Endodontic treatment principles. Access cavity preparation with pulp chamber opening and orifice location.	2
13.	Root canal preparation for obturation. Types of canal contents and their removal. Root canal working length estimation. Chemo-mechanical root canal preparation. Instruments, irrigants and medications. Principles of action and usage	2
14	Revision of lectures 9 to 13	3
	Total	30
No	<u>III course, 6 semester</u>	Hours
1.	Obturation of root canal system – objectives, requirements, materials, techniques, criteria for root canal obturation's assessment. Root canal filling materials. Basics of posts and cores in restoration of nonvital endodontically treated teeth	3
2.	Disinfection and sterilization. Methods for preventing cross-contamination and acute infectious disease. Preparation for caries treatment and teeth with pulp and periapical pathology. Methods and anesthetics for the aims of pain management in conservative dental medicine	3
3.	Dental caries aetiology and patogenesis. Topographic classification. Basic symptoms of caries. Examination methods for carious lesions.	3
4.	Anatomy and physiology of the dental pulp and periodontium. Pulp and periodontium diseases classification. Inflammatory diseases of dental pulp - aetiology and patogenesis	3

5.	Examination methods for diseases of dental pulp and periodontium. Basic symptoms of inflammatory diseases of dental pulp and periodontium. Treatment methods for inflammatory diseases of dental pulp. Critical analysis of nonvital methods.	3
Total		15

№	Course IV, VII semester	Hours
1.	Dental caries – classification, pathomorphology, clinical symptoms, differential diagnosis. Early diagnosis, noninvasive treatment.	2
2.	Treatment planning in operative dentistry.	2
3.	Dentine caries – types of dentine and clinical differentiation. Dental materials and medication for treatment of dentinal caries and their pharmacology. Reasons for one visit and two visits treatment.	2
4.	Biomechanical problems after placing restorations from amalgam, resin materials and glass-ionomers.	2
5.	Secondary dental caries – clinical symptoms and diagnosis. Etiology and reasons for secondary caries prevention. Recurrent caries and root caries- clinical symptoms and diagnosis, treatment.	2
6.	Restoration of vital teeth with massive enamel and dentine losses – discussion and analysis of available tooth structures, occlusal forces and their functional efficiency.	2
7.	Revision of lectures 1 to 6.	3
Total		15

№	Course IV, VIII semester	Hours
1.	Restoration of endodontically treated teeth. Root canal posts – types, technology, iatrogenic errors. Post and core restorations.	2
2.	Non carious dental defects, part I – acute and chronic dental trauma, heat and chemical tooth causes, iatrogenic causes. Etiology, pathogenesis, clinical symptoms, diagnosis, treatment	2

	and prevention.	
3.	Non carious dental defects, part II – Fluorosis, abrasion, erosion, dental hypoplasia. Etiology, pathogenesis, clinical symptoms, diagnosis, treatment and prevention.	2
4.	Endodontic treatment planning – links with diagnosis, reasons for multiple visit choices and the role of JDP. Initial treatment, definitive treatment, difficulties during treatment. Professional links between specialists in endodontics and JDP.	2
5.	Regressive changes in the pulp. Non inflammatory pulp pathology: Atrophy, Dystrophy, pulp stones, blood vessels pulp pathology - Etiology, pathogenesis, clinical symptoms, diagnosis, treatment.	2
6.	Acute and chronic pulp pathology. Inflammation in pulp pathology. Reversible and nonreversible pulp pathology. Clinical symptoms, diagnosis, treatment.	2
7.	Revision of lectures 1 to 6.	3
	Total	15

№	Course V, IX semester	Hours
1.	Biological treatment of the pulp - reversible and nonreversible conditions: pulp capping. Diagnosis, inclusion and exclusion criteria, treatment methods, medication and materials. Critical revision.	2
2.	Pulp extirpation under anesthesia – methodology, inclusion and exclusion criteria, possible complications. One and two visits motivation.	2
3.	Pain control in endodontics: the pain in orofacial pathology, pain as a leading endodontic syndrome. Clinical behavior and approach to patients with acute dental pain.	2
4.	Acute periapical pathology. Clinical symptoms, diagnosis, treatment.	2
5.	Periapical lesions. Clinical symptoms, diagnosis, treatment, follow up duration.	2
6.	Pathogenesis of dental pulp and periapex recovery after different treatment methods in pulp pathology and endodontics.	2
7.	Revision of lectures 1 to 6.	3
	Total	15

№	Course V, X semester	Hours
1.	Indirect resin restorations – cavity preparation, technology, critical review of advantages and disadvantages.	2
2.	Retreatment in endodontics: Legal, professional and economical aspects. Inclusion and exclusion criteria and clinical decision making.	2
3.	Difficult differential diagnostic problems in endodontics. Non endodontic structures as diagnostic mistakes – traumatic cysts, sinusitis, Herpes zoster, neuralgia, cracks and fractures of hard dental tissues.	2
4.	Endodontic surgery: general information, inclusion and exclusion criteria. Main techniques in surgical endodontics: apicoectomy, hemisection, retrograde root canal obturation. Follow up duration and criteria for valuation of treatment outcome.	2
5.	Emergency endodontics – definition and aspects of the problem, diagnosis which requires emergency. Techniques in root canal smear layer removal, root canal preparation and medication and pathways for evacuation of the exudate. Reduction of the occlusal forces. Different schemes of evidence based clinical behavior.	2
6.	Microbiology in endodontics – microbial flora in non-infected and infected root canals in necrotic pulp. Main bacteria and their relation to hard dental structure diseases. Microbiology probation in endodontics – special needs, methods of probation and reasons for antibiotic therapy.	2
7.	Bleaching – vital and nonvital. Reasons, techniques, cavity preparations, risks and prevention of complications during bleaching. Technology of facets from resin materials.	3
	Total	15

SEMINARS PROGRAMME

№	II course, IV semester	Hours
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1.	Instrumentarium – purpose. Requirements for the elements of a preparation. Elements of retention – methods of preparation, mechanism of action. When does a preparation satisfy the following requirements: easy and accurate adjustment of forming appliances (matrix, wedge, etc.); easy application of obturation materials; precise establishing of tooth form and proximal contacts; satisfying aesthetic results.	8
2.	Class I preparations for dental amalgam.	7
	Total	15

SEMINARS PROGRAMME

№	III course, V semester	Hours
1.	Class II preparations for dental amalgam – basic configurations.	10
2.	Preparations for aesthetic materials in the anterior region – types, basic configurations. Armamentarium used for class II preparations for aesthetic materials. Requirements for every particular element and slice of the preparation. When does a preparation allow: efficient etching, easy appliance of an adhesive system and obturation material, invisible transition between tooth structures and obturation material, precise construction of tooth form and proximal contacts, preserving the incisal leading, preserving the vitality of the tooth.	12
3.	Preparations for aesthetic materials in distal teeth (molars and premolars) – types, basic configurations. Indications and contraindications. Requirements for every particular element and slice of the preparation. When does a cavity form allow: preserving the occlusal interrelations, good adhesion between the obturating material and tooth structures, lowered polymerization shrinkage of the obturation material, periodontal tissues injury preventing, retention of the obturation material, including placement of parapulpal posts. Technique for placement of parapulpal posts.	12
4.	Dental amalgam obturations - Instruments. Sequence and purpose of the manipulations used. Obturation polishing – terms, mistakes, consequences. Criteria for determining the accuracy of an obturation – defended thesis.	11
	Total	45

№	<u>III course, VI semester</u>	Hours
1.	Composite materials obturations – Instruments. Sequence and purpose of the manipulations used for obturating III, IV and II class preparations. Possible ways for leading and compensating the polymerization shrinkage of composite materials.	15
2.	Endodontic access cavity – Purpose. Factors affecting the position of the endodontic access cavity. Instruments and their purpose, used for preparing an endodontic access cavity and for shaping the pulp chamber. Basic configurations of the endodontic access cavities for incisors, canines, molars and premolars. Age differences in endodontic access cavities. Number and position of the orifices of root canals. Prevention of crown discoloration after endodontic treatment.	15
3.	Step-back technique for cleaning and shaping root canals. Instruments. Essence, purpose and sequence of the manipulations used for removing the contents of a root canal. Determining working length. Root canal cleaning and shaping.	15
4.	Obturation of root canals with cold lateral compaction. Criteria for determining the adequacy of canal preparation before obturation. Master cone and compactor selection. Objective control of the obturating manipulations. Preparation and placement of the root canal sealer – paste-like root canal filling material, actual lateral compaction, accessory cones. Objective control of the quality of root canal filling.	15
	Total	60

№	IV course / VII term	Hours
1.	Premedication and anesthesia used for conservative dentistry purpose. Control of the complications – haematoma, traumatic injuries, paresthesia, allergic reactions.	25
2.	Dentine wound – types, medicine treatment. Differential diagnosis of caries profunda. Biomechanical problems of obturations made of dental amalgam, composite materials and	25

	glass-ionomer cements.	
3.	Most common mistakes made when removing the biological content of a root canal and shaping the latest. Cause and ways for correcting the following mistakes: bleeding of a root canal, traumatic and infectious apical periodontitis, perforations, zip perforations, edges, apical plugs, emphysema, separation of root canal instruments, toxic periodontitis	25
	Total	75

№	IV COURSE – VIII TERM	Hours
1.	TOOTH RESTORATION WITH POST SYSTEMS – INDICATIONS, CONTRAINDICATIONS, SEQUALE OF PROCEDURES FOR DYRECT AND UNDYRECT POSTS.	20
2.	MISTAKES IN CAVTY PREPARATION AND OBTURATION LEADING TO SECONDARY CARIES DEVELOPMENT.	20
3.	TREATMENT PLAN FOR THE MEANS OF CONSERVATIVE TGREATMENT.	20
4.	CAST METAL INLAYS – INDICATIONS, CAVITY PREPARATION. INDIRECT METHOD FOR PREPARATION	15
	Total	75
№	V COURSE – IX TERM	Hours
1.	1. VITAL PULP THERAPY – TYPES, INDICATIONS, CONTRAINDICATIONS, TECHNIQUE, CONTROL OF THE RESULTS .	25
2.	INSTRUMENTS FOR DIAGNOSIS AND TREATMENT IN ENDODONTICS – TECHNIQUES FOR SHAPING THE ROOT CANAL SYSTEM, OUTCOME EVALUATION, INFECTION CONTROL.	25
3.	DIFFERENTIAL DIAGNOSIS OF INFLAMATORY DISEASES OF PULP AND PERIRADICULAR TISSUES	25
	Total	75

№	V COURSE – X TERM	Hours
1.	RETREATMENT IN ENDODONTICS	25
2.	ENDODONTIC SURGERY – RADICOTOMY, HAEMISECTION, BICUSPIDATION, REIMPLANTATION.	25

3.	EMERGENCY ENDODONTICS – MANAGEMENT PRINCIPLES	25
	Total	15

TABLE:

Practical Training in Preclinical Conservative Dentistry					
	TYPES OF TEETH		TYPES OF OBTURATION		
NOSOLOGICAL UNITS	plastic	natural	amalgam	composite	Cast restoration
1. Class I cavities for dental amalgam	4	1	-	-	-
2. Class II cavities for dental amalgam	5	1	-	-	-
3. Cavities for cast restorations	2	-	-	-	2
4. Class V cavities for dental amalgam	1	-	-	-	-
5. Class II cavities for composite materials	2	1	-	3	-
6. Class IV cavities for composite materials	2	1	-	3	-
7. Class I and II cavities for composite materials	2	1	-	3	-
8. Class V cavities for composite materials	1	-	-	1	-
9. Endodontic treatment of single-rooted teeth	-	4	-	4	-
10. Endodontic treatment of multi-rooted teeth	-	2	-	2	-
11. Post-retained restoration	-	1	-	1	-

DEMONSTRATIONS

FOURTH YEAR – SEVENTH SEMESTER

1. Local anesthesia – mandibular and intraligamentary anesthesia.
2. Preparation of a Class II cavity, analysis and treatment of the dentinal wound, restoration with dental amalgam. Clinical and paraclinical evaluation of the outcome.
3. Preparation of a Class II cavity for composite material restoration. Application of an adhesive system and placement of a composite restoration. Technological, clinical, and paraclinical analysis.

4. Sandwich base and sandwich restoration of a cavity prepared by the student.
5. Restoration of a Class IV defect using the incremental layering technique with composite material.
6. Placement of a prefabricated post in a cavity prepared by the student.
7. Preparation of an endodontic access cavity (molar tooth). Localization and enlargement of canal orifices. Intrapulpal anesthesia.
8. Root canal instrumentation and preparation.
9. Root canal obturation using the lateral condensation technique.
10. Analysis of diagnostic and follow-up radiographs in the context of *caries simplex* and root canal treatment.

FOURTH YEAR – EIGHTH SEMESTER

1. Post-and-core build-up using a cemented radicular post.

FIFTH YEAR – NINTH SEMESTER

1. Post-and-core build-up using a screw-retained radicular post.
2. Preparation of a cavity for a cast restoration. Placement of a gingival retraction cord and impression taking.
3. Preparation of a cavity for composite inlay and onlay restorations.
4. Adjustment and cementation of composite inlay and onlay restorations.

REQUIREMENTS FOR CLINICAL TRAINING IN THE COURSE OF CONSERVATIVE DENTISTRY

TABLE: IV and V course	Cases	Points
1. Caries treatment	17	33
2. Endodontic treatment – number of root canals	14	45
3. Inlays	1	6
4. Pinlays	-	-
5. Post and core restorations	3	9
6. Electroodontodiagnostics (EOD)	5	

7. Remineralization therapy with physical modalities for diseases of the hard dental tissues	3	
8. Galvanization and iontophoresis in the treatment of infected root canals and periodontitis	3	
9. Treatment using high-frequency alternating currents	3	
10. Ultrasound therapy	2	
11. Treatment using light-based modalities (UV therapy, laser therapy)	4	

During semesters:	VII sem.		VIII sem.		IX sem.		X sem.	
	cases	points	cases	points	cases	points	cases	points
Caries treatment	3	5	4	6	5	10	5	12
Endodontic treatment – number of root canals	3	9	3	9	4	12	4	15
Inlays	-	-	-	-	-	-	1	6
Pinlays	-	-	-	-	-	-	-	-
Post and core restorations	-	-	1	3	1	3	1	3

By the end of the fourth academic year, students are required to complete one of the following three types of post-and-core restorations:

1. Prefabricated post restoration;
2. Radicular post combined with plastic restorative material;
3. Cast post-and-core restoration with a radicular post.

General Mandatory Requirements for the Entire Clinical Course

1. Administration of at least two intraligamentary anesthetic procedures;
2. Completion of at least eight root canal obturations using the lateral condensation technique;
3. Completion of at least three restorations using a radicular post and plastic restorative material.

Regulations for the Practical Examination in Clinical Conservative Dentistry

1. The practical examination in Clinical Conservative Dentistry is conducted exclusively within four clinical training sessions (10 academic hours) during the final two weeks of the tenth semester.
2. Students who fail to complete the clinical requirements established by the Department within the allocated examination period are required to sit for a resit examination.
3. Students are not permitted to undertake additional clinical work in other groups outside their assigned schedule, including in cases of patient absence or for the purpose of compensating for lost time.
4. In the event of receiving two failing grades in stages of treatment related to *caries simplex* or endodontic therapy, the practical examination must be repeated.
5. Students who obtain a grade lower than Good (4.00) on the practical examination during the regular examination session and who fail the theoretical examination are required to attend the resit session for both the practical and theoretical examinations.

Analysis and Revision of the Current Educational Documentation

The existing educational documentation is periodically reviewed and updated. Changes in the required volume of practical training are promptly recorded in the students' practical training records.

A new clinical workbook in Conservative Dentistry has been developed in accordance with the modifications introduced into the curriculum.

Written examination components have been introduced into the theoretical examinations in both preclinical and clinical Conservative Dentistry. Expanded test formats are applied in semester as well as state examinations. During the state examination, part of the response (one examination question) is completed in written form.

The individual student records maintained by the Department, as well as the official examination protocol books for preclinical, clinical, and state examinations, have been revised. The requirement has been implemented to document separately:

- the ticket numbers for the written and oral components of the theoretical examination;

- the test number;
- and the grades obtained in the practical examination, written examination, test component, and oral examination.

MONITORING AND EVALUATION FORMS:

1. Evaluation of students' activity during the training course
2. Test examination marks at the end of each term
3. Practical exam marks
4. Theoretical exam marks (test, written and oral questions)

REFERENCES:

1. Lectures in Propaedeutics of Conservative dentistry
2. Textbook in Propaedeutics of Conservative dentistry
3. Practical manual of Propaedeutics of Conservative dentistry
4. Lectures in Clinics of Conservative dentistry
5. Textbook in Clinics of Conservative dentistry
6. Practical manual of Clinics of Conservative dentistry

CONSERVATIVE DENTISTRY PRECLINICAL SYNOPSIS

ORAL EXAM

1. Anatomy of the cavity form - basic elements.
2. Requirements to the cavity form.
3. General principles of cavity preparation (First principle of caries treatment) – basic factors affecting outline cavity form.
4. General principles of cavity preparation – additional factors affecting outline cavity form.
5. Factors affecting outline cavity form - practical significance for cavity borders determination on each tooth surface.
6. General principles (guidelines) of cavity preparation – creating resistance forms.
7. General principles (guidelines) of cavity preparation – creating retention forms.
8. General principles of cavity preparation - practical significance for initial outline form and carious dentin removal.
9. General principles of cavity preparation - practical significance for enamel margins finishing (beveling).
10. Class I cavity preparation for amalgam restorations – occlusal cavities first type.

11. Class I cavity preparation for amalgam restorations – occlusal cavities second type.
12. Class I cavity preparation for amalgam restorations – foramen coecum (buccal or lingual pit) cavities.
13. Class I cavity preparation for amalgam restorations – occlusobuccal cavities first type.
14. Class I cavity preparation for amalgam restorations – occlusobuccal cavities second type.
15. Class II cavity preparation for amalgam restorations – general characteristics and basic parts of the common form.
16. Class II cavity preparation for amalgam restorations – characteristics and elements of the proximal outline form.
17. Class II cavity preparation for amalgam restorations – characteristics and elements of the occlusal outline form.
18. Class II cavity preparation for amalgam restorations – box-only form.
19. Class II cavity preparation for amalgam restorations – conventional form.
20. Class II cavity preparation for amalgam restorations – conservative form (“slot” preparation).
21. Class II cavity preparation for amalgam restorations – approximo-occlusobuccal (approximo-occluso-lingual) form.
22. Class V cavity preparation for amalgam restorations.
23. Microretentions – characteristics, preparation technique, retention significance and SEM characteristics.
24. Adhesive systems – classification, chemical compounds (composition) and characteristics.
25. Class III cavity preparation for composite resin (tooth-colored) restorations – proximal form.
26. Class III cavity preparation for composite resin (tooth-colored) restorations – linguoproximal form.
27. Class III cavity preparation for composite resin (tooth-colored) restorations – buccoproximal form.
28. Class III cavity preparation for composite resin (tooth-colored) restorations – linguobuccoproximal form.
29. Class IV cavity preparation for composite resin (tooth-colored) restorations – incisoproximal form.
30. Class IV cavity preparation for composite resin (tooth-colored) restorations – incisoproximolingual form.
31. Class IV cavity preparation for composite resin (tooth-colored) restorations – incisoproximobuccolingual form.

32. Class IV cavity preparation for crown fractures of the incisal ridge. Providing retention in clinical conditions.
33. Class I and II cavity preparation for direct composite resin (tooth-colored) restorations – basic rules.
34. Class V preparation for amalgam and composite resin restorations.
35. Parapulpal pins – indications, types of pins and biomechanical problems associated with their insertion.
36. Parapulpal pins – anatomical consideration about application site.
37. Parapulpal pins – instruments and insertion technique.
38. Medicatio cavi dentis (Second principle of cavity treatment) – basic concepts, reasons for medication and goals.
39. Medicatio cavi dentis (Second principle of caries treatment) – medicaments, pharmaco-dynamics, application errors.
40. Temporary fillings – function, materials, requirements, critical analysis, indications for application.
41. Obturatio cavi dentis (third general principle of caries treatment) – basic concepts. Restorative materials – biological, mechanical and esthetic requirements.
42. Obturatio cavi dentis (third principle of caries treatment) – indications, contraindications and relative contraindications for application of restorative materials. Factors affecting the choice of appropriate material.
43. Obturatio cavi dentis (third principle of caries treatment) – dentine liners. Biomechanical requirements to the materials and critical analysis.
44. Obturatio cavi dentis (third general principle of caries treatment) – insulation bases. Application techniques and basic configurations depending on different kind of base materials.
45. Restoration contours – basic characteristics depending on the tooth crown form. Errors, complications and repair options.
46. Interproximal contacts - basic characteristics depending on the tooth crown form. Errors, complication as a result of uncorrect proximal contacts and contours restoration. Repair options.
47. Amalgam restorations – instruments and application technique.
48. Esthetic restorative materials - instruments and application technique.
49. Cast metal restorations – indications, contraindications and relative contraindications for their application. Specific rules for cavity preparation.
50. Cast metal inlay restorations. Direct (clinical, chairside) method – indications, instruments and technique.
51. Cast metal inlay restorations. Indirect (laboratory) method – indications, instruments and technique.

52. Cast metal restorations – adjustment, cementation and removal of the inlay.
53. Endodontium – definition. Endodontic internal anatomy.
54. General principles of endodontic treatment. Principles of endodontic access.
55. Endodontic access to pulp chamber - cavity preparation and location of orifices.
56. Removal of different kinds endodontic space content (vital or necrotic pulp tissues) – instruments, techniques, errors and complications.
57. Working length determination of the root canal.
58. Chemo-mechanical preparation of the root canals (cleaning and shaping) – endodontic instruments and their ISO standardization.
59. Chemo-mechanical preparation of the root canals – basic guidelines and hand instrument techniques.
60. Chemo-mechanical preparation of the root canals – standard and step-back techniques.
61. Irrigation protocol – intracanal irrigants, guidelines and techniques for application.
62. Obturation of the root canals – requirements to the root canal sealers, instruments and techniques.
63. Lateral condensation – basic concepts, indications, instruments, advantages and disadvantages.
64. Methods and criteria for root canal filling assessment.
65. Root canal sealers – pharmacologic characteristics of their basic ingredients (compounds).
66. Aseptics and antiseptics (sterilization). Protection against acute infectious diseases.
67. Preparation of the operation field and patient for caries treatment and endodontic treatment.
68. Methods for pain control during caries and endodontic treatment – anesthetics and devices for their application.
69. Etiology and pathogenesis of the tooth caries.
70. Examination methods for the hard tooth tissues in cariology.
71. Inflammatory disorders/diseases of the dental pulp – etiology, pathogenesis and classification.
72. Inflammatory diseases of the dental pulp – main clinical signs and symptoms, paramedical investigations.
73. Examination methods and treatment approaches in endodontics – general characteristics.
74. Periodontium – anatomy, histology and physiology. Etiology and pathogenesis of the periodontal diseases.

75. Examination methods in periodontology. Classification of the periodontal diseases.

76. Inflammatory periodontal diseases - main clinical signs and symptoms, paramedical investigations.

WRITTEN EXAMINATION

1. Dental caries – definition and classification.
2. Dental caries – treatment aspects, indications, contraindications.
3. General principles for the treatment of dental caries by obturation.
4. Cavity configurations. Factors affecting cavity preparation.
5. Initial cavity preparation stage – instruments, general considerations depending of filling material.
6. Gingival wall - requirements for Class II - MO, DO and MOD cavities.
7. Dovetail retention form – indications, internal configuration.
8. Dentin retentions – different types, indications, position, techniques of preparation depending of cavity configuration and filling material.
9. Occlusal outline retention form in molars - indications, internal configuration.
10. Filling materials for treatment of dental caries.
11. Dental amalgam – classification, composition, mechanism of hardening.
12. Dental amalgam – clinical characteristic.
13. General configurations and characteristics of the Class I cavity preparation for amalgam restorations.
14. General configurations of the Class II cavity preparation for amalgam restorations.
15. Composition and types of composite materials.
16. Clinical characteristic of composite materials.
17. General configurations and characteristics of the cavities of Class III and V for composite filling materials.
18. General configurations and characteristics of the cavities of Class IV for composite filling materials.
19. Glassionomer cements – types and mechanism of setting.
20. Glassionomer cements – clinical characteristics and indications.
21. Root canal anatomy of upper molars.
22. Root canal anatomy of lower molars.

23. Characteristics of apical zone – physiological constriction, physiological foramen, apical foramen, anatomical apex, radiographic apex.
24. Endodontic barbed broaches - characteristics and techniques of use.
25. Basic hand endodontic instruments.
26. Hand endodontic instruments - standardization.
27. Root canal preparation – Step-back technique.
28. Lateral condensation – technique of application.
29. Pharmacodynamic effect of Eugenol and ZnO in composition of root canal pastes.
30. Dental caries – radiographic characteristics.
31. Histology of pulp tissue.
32. Physiology of pulp tissue.
33. Pulpal diseases – classification. Basic principals and critical analysis.
34. Pulpitis acuta serosa – clinical characteristic.
35. Pulpitis acuta purulenta – clinical characteristic.
36. Pulpitis chronica – clinical characteristic.
37. Periodontal diseases – basic principals of classification.
38. Chronic periodontitis – radiographic characteristics.

CONSERVATIVE DENTISTRY CLINICAL SYNOPSIS

ORAL EXAM

1. Dental caries – classification. Basic principles for composition and critical analysis of the existing classifications.
2. Pathomorphologic characteristics of the acute and chronic dental caries.
3. Clinical and paraclinical characteristics of the different types of dental caries.
4. Differential diagnosis of the dental caries.
5. Early diagnosis of the dental caries – critical analysis of the basic methods in use.
6. Methods and resources for the treatment of incipient carious defects (spots or maculas).
7. Physiotherapeutic resources for the treatment of dental caries.
8. Medico-biological bases of the treatment of dentin wound.
9. Secondary caries – definition, etiology, pathogenesis.
10. Secondary caries – clinical characteristics and differential diagnosis.
11. Prevention of the secondary caries.
12. Dental hyperesthesia (hypersensitivity) – types and reasons for beginning.

13. Clinical characteristics, differential diagnosis and treatment of the dental hyperesthesia (hypersensitivity).
14. Basic indicators for estimation of the clinical condition of teeth with significant (substantial) destruction of the clinical crown.
15. Analysis of the existing hard dental structures in connection with their preparation for restoration of considerable destructions of the clinical dental crown.
16. Principle requirements for dental preparation in the presence of significant destructions, affecting different parts of the dental crown in vital teeth.
17. Indications and contraindications for indirect resin obturations (resin inlays).
18. Characteristics of the cavity for indirect resin obturations (resin inlays).
19. Methods for making indirect resin obturations (resin inlays).
20. Critical analysis of the direct and indirect resin obturations.
21. Atrophy and dystrophy of the dental pulp – basic clinical and paraclinical characteristics. Differential diagnosis. Prognosis and treatment.
22. Calcium metaplasia of the dental pulp. Clinical and paraclinical characteristics. Differential diagnosis. Treatment.
23. Blood vessel diseases of the dental pulp. Clinical and paraclinical characteristics. Differential diagnosis. Reversible and irreversible alterations (changes). Treatment.
24. Acute pulpitis. Clinical and paraclinical characteristics. Reversibility and irreversibility of the processes. Differential diagnosis. Treatment.
25. Chronic pulpitis. Clinical and paraclinical characteristics. Differential diagnosis. Treatment.
26. Medico-biological bases of the conservative (biological, pulp capping) methods for treatment of the dental pulp.
27. Indirect pulp capping. Technique, medicaments, prognosis.
28. Direct pulp capping. Technique, medicaments, prognosis.
29. Essence of the biological treatment methods of the dental pulp (pulp capping methods). Indications and contraindications. Critical analysis of the pulp capping methods.
30. Vital amputation – indications, contraindications, medicaments, prognosis.
31. Vital extirpation – essence, anatomic preconditions. Indications and contraindications. Prognosis.
32. Vital extirpation – technique. Possibilities for effective anaesthesia. Choosing an appropriate root canal sealer.
33. Acute apical periodontitis – clinical and paraclinical characteristics. Differential diagnosis.
34. Acute apical periodontitis – treatment.

35. Chronic apical periodontitis - clinical and paraclinical characteristics. Differential diagnosis.
36. Chronic apical periodontitis – treatment.
37. Exacerbated chronic apical periodontitis – clinical and paraclinical characteristics. Differential diagnosis. Treatment specifics.
38. Essence and type of the healing processes after root canal treatment of irreversible pulpitis and apical periodontitis.
39. Emergency endodontics – definition, essence, characteristics.
40. Basic aims of emergency endodontics and ways to complete them.
41. Most frequent nosological units that are objects of emergency endodontics. Treatment schemes.
42. Basic components of post and core restoration of teeth after root canal treatment. Purpose, indications and contraindications for application of root canal posts.
43. Types of root canal posts. Requirements towards posts. Biomechanical problems connected with the application of the different types of root canal posts.
44. Application technique of the basic types of root canal posts.
45. Basic reasons for difficult or incorrect diagnostics in endodontics.
46. Basic symptoms, diagnostics and prognosis of cracks and fractures of the hard dental tissues, connected with endodontic practice.
47. Non-odontogenic units (conditions) that might be confused for endodontic diseases – anatomical structures and pathological changes.
48. Problems, connected with retreatment of endodontically treated teeth.
49. Reasons and methods for retreatment of endodontically treated teeth.
50. Basic techniques of endodontic surgery. Incisions for drainage.
51. Apical surgery – aim, indications, contraindications. Basic manipulations. Retrograde cavity preparation and obturation. Postoperative medical care.
52. Endodontic surgery – root resection, hemisection, bicuspidation.
53. Physiotherapeutic methods for treatment of dental pulp – conservative treatment and extirpation methods.
54. Physiotherapeutic methods for treatment of infected root canals.
55. Physiotherapeutic methods for treatment of acute apical periodontitis aiming pain reduction and healing process stimulation.
56. Physiotherapeutic treatment for chronic apical periodontitis aiming healing process acceleration after root canal treatment.
57. Endodontic microbiology – characteristics of endodontic microorganisms. Control of the microorganisms during endodontic diseases.
58. Teeth bleaching – basic techniques and materials.

WRITTEN EXAMINATION

1. Classification of carious diseases of hard tooth tissues.
2. Clinical and paraclinical differentiation of chronic from acute carious process.
3. Caries profunda - differential diagnosis.
4. Opportunities and critical analysis of radiographic diagnosis of initial carious lesions.
5. Cavity preparation – errors, leading to secondary caries /indication without comment/.
6. Obturation with dental amalgam – errors, leading to secondary caries /indication without comment/.
7. Dental hyperesthesia - differential diagnosis.
8. Cast metal restorations for Class II cavity - indications, contraindications.
9. Composite inlay - indications, contraindications.
10. Hyperaemia pulpaе - differential diagnosis.
11. Pulpitis acuta purulenta totalis - differential diagnosis.
12. Pulpitis chronica ulcerosa - differential diagnosis.
13. Direct and indirect pulp capping – indications, contraindications.
14. Root canal treatment on teeth with vital pulps - indications, contraindications.
15. Periodontitis acuta purulenta – differential diagnosis.
16. Periodontitis chronica granulomatosa diffusa – differential diagnosis.
17. Periapical abscess – techniques of draining the pus.
18. Radicular posts – biomechanical rules for the applications.
19. Apical endodontic surgery - indications, contraindications.
20. Root resection, hemisection, bicuspidation - indications, contraindications.
21. Endodontic retreatment – root canal filling removal.
22. Intraligamental anesthesia.
23. Intrapulpal and intraosseal anesthesia.
24. Critical analysis of materials used for restorations of teeth after endodontic treatment.
25. Endodontic microbiology – species characteristic of the endodontic microflora.
Bacteroides.

26. Endodontic microbiology – conditions and ways of penetration of microorganisms in dental pulp and periodontal tissue.
27. Endodontic microbiology – rules for successful microbiological examination in endodontics.
28. Teeth bleaching – complications.
29. Teeth bleaching – causes of discolorations.

SYNOPSIS OF CONSERVATIVE DENTISTRY – STATE FINAL EXAMINATION (CERTIFICATION)

1. Etiology and pathogenesis of tooth caries.
2. Classification and pathomorphology of tooth caries.
3. Clinical and differential diagnosis of tooth caries.
4. Early diagnosis of tooth caries - clinical features and non operative treatment.
5. Dentine wound – types, main characteristics and treatment.
6. Non-aesthetic restorative materials – types, chemical composition, physical properties, indications and contraindications.
7. Aesthetic restorative materials - types, chemical composition, physical properties, indications and contraindications.
8. Asepsis and antiseptics in operative dentistry.
9. Factors, determining the borders of cavity preparations.
10. Class I cavity preparations for non aesthetic plastic restorative materials. Main configurations and characteristics.
11. Class V cavity preparations for non aesthetic plastic restorative materials. Main configurations and characteristics.
12. Class II cavity preparations for non aesthetic plastic restorative materials.
13. Cavity preparation for indirect restorations.
14. Class III cavity preparations for aesthetic plastic restorative materials. Main configurations.
15. Class IV cavity preparations for aesthetic plastic restorative materials. Main configurations.
16. Class V cavity preparations for aesthetic plastic restorative materials. Main configurations.
17. Class I and II cavity preparations for aesthetic plastic restorative materials.
18. Clinical procedures preparing the patient for definitive restoration.
19. Biomechanical problems of different cavity preparations.
20. Restorative technique for dental amalgam.
21. Restorative technique for cast metal restorations.

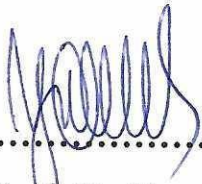
22. Restorative technique for aesthetic restorations.
23. Anaesthesia in cariology and endodontology.
24. Pins.
25. Secondary caries lesions.
26. Tooth hyperaesthesia.
27. Non caries lesions – erosion, fluorosis,
28. Clinical presentation and diagnosis of acute pulpitis.
29. Clinical presentation and diagnosis of chronic pulpitis.
30. Reversible and irreversible pulpal diseases. Clinical presentation and prognosis.
31. Clinical presentation and diagnosis of acute periodontitis.
32. Clinical presentation and diagnosis of chronic and reactivated periodontitis.
33. Difficult differentiation diagnoses in endodontics.
34. Endodontic cavity preparation, pulpal removal, enlargement of orifices.
35. Cleaning and shaping of root canal system.
36. Endodontic mishaps: detection, correction and prevention.
37. Obturation of root canal system.
38. Post systems. Types, biomedical problems. Indications and contraindications. Placement technique.
39. Vital pulp therapy.
40. Vital methods for pulp treatment.
41. Microbiology of endodontics – bacteria, cultured from root canals. *Bacteroides* sp. Collection of microbial sample.
42. Microbiology of endodontics – ways of bacterial invasion in pulp and periodontal tissues. Main characteristics of microorganisms.
43. Tooth bleaching.
44. Criteria and methods for evaluation of endodontic treatment.
45. Retreatment in endodontics.
46. Restoration of the endodontically treated tooth.
47. Emergency endodontics.
48. Endodontic surgery.

Special Physiotherapy

1. Electroodontodiagnostics (EOD) in diseases of the hard dental tissues and the dental pulp.
2. Physical therapeutic methods in the treatment of diseases of the hard dental tissues and the dental pulp.
3. Physical therapeutic methods in the treatment of infected root canals.
4. Contemporary physical approaches for the management and control of secondary infection.

Department's council protocol:

Faculty's council protocol:

PREPARED:.....

/Assoc. Prof. Dr. Tsvetelina Borisova, DMD, PhD /

HEAD OF DEPARTMENT:.....

/Assoc. Prof. Dr. Tsvetelina Borisova, DMD, PhD /