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**MINISTRY OF EDUCATION AND SCIENCE OF RUSSIA**

**Federal State Budgetary Educational Institution  
of higher education**

**«I.N. Ulianov Chuvash State University»  
(FSBEI of HE «I.N. Ulianov Chuvash State University»)**

Medical Faculty

Department of Propaedeutics of Dental Diseases and New Technologies

«APPROVE»

Vice-rector for Academic Affairs

  
I.E. Poverinov

« 13 » 04 2022

**Working programs of the discipline (module)  
«Пропедевтическая стоматология / Propaedeutic Dentistry»**

Direction of training / specialty 31.05.03 Стоматология / Dentistry  
Graduate's qualification Врач-стоматолог / Dental Practitioner

Direction (profile) / specialization «Dentistry»

Form of training – очная / intramural

Course – 1, 2

Term – 2, 3, 4

Total academic hours/credit points – 252/7

The year of beginning the training – 2022

The fundamental document for compiling the working program of the discipline (module)  
Федеральный государственный образовательный стандарт высшего образования -  
специалитет по специальности 31.05.03 Стоматология (приказ Минобрнауки России от  
12.08.2020 г. № 984)

Approved by:

Head of the department, Candidate of Medical Sciences L.I. Nikitina

Professor, Doctor of Medical Sciences L.R. Mukhamedzhanova

The working program was approved at the meeting of the Department of Propaedeutics of  
Dental Diseases and New Technologies,

25.03.2022, protocol № 8

Head of the department L.I. Nikitina

Approved by

Dean of the Medical Faculty V.N. Diomidova

Acting Head of the Educational and Methodological Department E.A. Shirmanova

## **1. The purpose and objectives of training in the discipline (module)**

The purpose of the discipline - teaching the basics of medical deontology, general principles of diagnosis; semiotics of oral diseases and tissues, the initial professional manual skills of a general dentist, which is the basis for mastering the clinical disciplines. Learning the basics of endodontics. Mastering the techniques of tooth extraction surgery and complications.

The objectives of the discipline - learn the basic methods of examining a dental patient; learn how to work with basic dental equipment, instruments, materials; know and observe sanitary-hygienic requirements, safety rules; to master the basics of medical deontology, semiology, diagnostics of main dental diseases, to perform separate dental manipulations on phantom; master basic professional manual skills of dentist on the phantom.

## **2. The place of practical training in the structure of the educational program of higher education**

The discipline «Пропедевтическая стоматология / Propaedeutic Dentistry» относится к обязательной части учебного плана refers to the mandatory part in the curriculum of the educational program of higher education (hereinafter referred to as the EP of HE) in the field of training / specialty 31.05.03 Стоматология, direction (profile) / specialization of the program «Dentistry».

Previous academic disciplines (modules) and (or) practices that form the knowledge, skills and abilities necessary for training in the discipline (module):

Биохимия / Biochemistry

Микробиология, вирусология / Microbiology, Virology

Нормальная физиология / Normal Physiology

Патофизиология / Pathophysiology

Анатомия / Anatomy

Гистология, эмбриология, цитология / Histology, Embryology, Cytology

Иммунология / Immunology

Профилактическая стоматология / Preventive Dentistry

Латинский язык / The Latin Language

Медицинская физика / Medical Physics

История медицины / History of Medicine

Knowledge, skills and abilities formed as a result of training in a discipline (module) are necessary when teaching in the following disciplines (modules) and (or) practices:

Производственная практика (клиническая практика по стоматологии общей практики) / On-the-job training (clinical practice in general dentistry)

Основы материаловедения в стоматологии / Fundamentals of Materials Science in Dentistry

Материаловедение в ортопедической практике / Materials Science in Orthopedic Practice

Терапевтическая стоматология / Therapeutic Dentistry

Хирургическая стоматология / Surgical Dentistry

Физиотерапия в стоматологии / Physiotherapy in Dentistry

Детская стоматология / Pediatric Dentistry

Ортодонтия и детское протезирование / Orthodontia and Pediatric Prosthetics

**3. Planned learning outcomes in the discipline (module), correlated with the planned learning outcomes**

Planned learning outcomes in the discipline (module), correlated with the planned learning outcomes

Code and name of the competence	Code and name of the competence achievement	Descriptors for the indicator of competence achievement (learning)
ОПК-5 Способен проводить обследование пациента с целью установления диагноза при решении профессиональных задач / He/she is able to conduct a patient's examination in order to make a diagnosis when solving professional problems	ОПК-5.1 Способен применять алгоритм обследования пациента / He/she is able to apply the algorithm of patient's examination	<ul style="list-style-type: none"> <li>- the algorithm for initial and follow-up examinations;</li> <li>- algorithm for general clinical examination of children and adults;</li> <li>- reasons for referring patients for laboratory and instrumental examinations;</li> <li>- reasons for referring the patient for additional examinations (including X-rays, teleradiographs, radiovisiographs, orthopantomograms, tomograms (on film and digital media));</li> <li>- reasons for referring the patient for specialist consultations.</li>   <li>- carry out initial and follow-up examinations;</li> <li>- carry out the general clinical examination of children and adults;</li> <li>- justify and plan the referral of patients for laboratory and instrumental examinations;</li> <li>- justify and plan the referral of patients for additional examinations (including X-rays, teleradiographs, radiovisiographs, orthopantomograms, tomograms (on film and digital media));</li> <li>- justify and plan the referral of patients to specialists for consultation.</li> <li>- skills in initial and follow-up examinations;</li> <li>- skills in general clinical examination of children and adults.</li> </ul>
ОПК-5 Способен проводить обследование пациента с целью	ОПК-5.2 Способен применять навыки обследования пациента	- carrying out patient questionnaires about general health and identifying

<p>установления диагноза при решении профессиональных задач / He/she is able to conduct a patient's examination in order to make a diagnosis when solving professional problems</p>	<p>(сбор жалоб, анамнеза, физикальное обследование) / He/she is able to apply the skills of examining the patient (collecting complaints, taking the history, carrying out physical examination)</p>	<p>comorbidities;  - carrying out physical examinations and interpreting them.  - carry out patient questionnaires on general health and identify comorbidities;  - carry out physical examinations  - skills in gathering information from patients (their relatives/legal representatives);  - skills in interpreting physical examinations.</p>
<p>ОПК-5 Способен проводить обследование пациента с целью установления диагноза при решении профессиональных задач / He/she is able to conduct a patient's examination in order to make a diagnosis when solving professional problems</p>	<p>ОПК-5.3 Способен анализировать информацию полученную при обследовании пациента / He/she is able to analyze the information obtained during the patient's examination</p>	<p>- interpreting the results of information collection from patients (their relatives/legal representatives);  - interpretation of physical examination findings;  - interpretation of initial and follow-up examinations;  - interpretation of laboratory and instrumental findings;  - interpretation of additional examinations (including X-rays, teleradiographs, radiovisiographs, orthopantomograms, tomograms (films and digital media))  - Interpretation of specialist consultations.  - analyse and interpret the results of information collection from patients (their relatives/legal representatives);  - analyse and interpret the results of physical examinations;  - analyse and interpret data from initial and follow-up examinations;  - analyse and interpret laboratory and instrumental findings;  - analyse and interpret the findings of further investigations (including X-rays, teleradiographs, radiovisiographs, orthopantomograms, tomograms (films and digital data))  - interpret specialist consultation data.  - skills in analysing and interpreting examination results.</p>
<p>ПК-1 Способен провести</p>	<p>ПК-1.1 Способен</p>	<p>- carrying out physical</p>

<p>обследования пациента с целью установления диагноза / He/she is able to perform a patient's examination in order to make a diagnosis</p>	<p>провести физикальное обследования пациента (сбор жалоб и анамнеза, осмотр, пальпация, перкуссия) / He/she is able to conduct a patient's physical examination (taking a history, inspection, palpation, percussion)</p>	<p>examinations and interpreting the results;</p> <ul style="list-style-type: none"> <li>- general and specific signs of dental diseases;</li> <li>- interpretation of the results of the initial examination;</li> <li>- interpretation of the results of collection of information from the patient;</li> <li>- clinical signs of acute and chronic craniofacial pain of somatic, neurogenic and psychogenic origin;</li> <li>- the use of personal protective equipment.</li> <li>- apply knowledge of the topographic anatomy of the head, maxillofacial region, peculiarities of the blood supply, innervation and lymphatic system, the structure of the teeth, the embryology of the maxillofacial region, the main disorders of embryogenesis;</li> <li>- determine the etiology, pathogenesis and diagnose common diseases;</li> <li>- establish the relationship between the structure and functioning of the dento-alveolar system with disorders of the nasopharynx, respiratory and digestive systems and the musculoskeletal system;</li> <li>- apply diagnostic methods for temporomandibular joint disorders, salivary glands in children and adults</li> <li>- use personal protective equipment.</li> <li>- skills in carrying out the initial assessment;</li> <li>- questionnaire skills to collect information from patients (their relatives/legal representatives).</li> </ul>
<p>ПК-1 Способен провести обследования пациента с целью установления диагноза / He/she is able to perform a patient's examination in order to make a diagnosis</p>	<p>ПК-1.2 Способен анализировать информацию, полученную при проведении физикального обследования,</p>	<ul style="list-style-type: none"> <li>- the need to collect information from patients;</li> <li>- the need and extent of physical examinations;</li> <li>- the need and extent of specialist consultations;</li> <li>- the need and extent of</li> </ul>

	дополнительных методов исследования, сформулировать предварительный диагноз / He/she is able to analyze the information obtained during the physical examination, additional examination methods, formulate a preliminary diagnosis	laboratory, instrumental and additional examinations. - interpret data from questionnaires, specialist consultations and research results. - skills in analysing survey results.
ПК-1 Способен провести обследования пациента с целью установления диагноза / He/she is able to perform a patient's examination in order to make a diagnosis	ПК-1.3 Способен сформулировать диагноз на основании полученной информации / He/she is able to formulate a preliminary diagnosis on the basis of information obtained	- the algorithm for making a provisional diagnosis; - the algorithm for making a final diagnosis. - build up the clinical picture, symptoms of the main diseases and borderline conditions of the maxillofacial region in adults and children and their diagnosis; - apply the International Statistical Classification of Diseases and Related Health Problems; - rely on the results of special and additional research methods of differential diagnosis of dental diseases. - skills in developing an algorithm for provisional and definitive diagnosis.

#### 4. Structure, scope and content of the discipline (module)

Educational activities in the discipline (module) are carried out:

- in the form of students' face-to-face work with the teaching staff of the organization and (or) persons involved by the organization to implement the educational programs on other terms (hereinafter - contact work);

- in the form of students' independent work.

Face-to-face work can be classroom-based, extramural, as well as it can be conducted in an electronic information and educational environment (EIEE).

Learning sessions in the discipline (module) and interim assessment of students are conducted in the form of face-to-face work and in the form of students' independent work.

During learning sessions in the discipline (module) face-to-face work includes: lecture-type classes, seminar-type classes and (or) group consultations, and (or) individual work of students with the teaching staff of the organization and (or) persons involved by the organization to implement the educational programs on other terms (including individual consultations).

Legend:

Lec – lectures, Lab – laboratory work, Pr – practical classes, ICW – individual face-to-face work, IW – independent work.

#### 4.1. Content of the discipline (module)

Section name	The section's content	Formed competences	Competence achievement indicator
The main stages in the development of dentistry. Introduction to the specialty. The dentoalveolar functional system.	Aims and objectives of dentistry	ПК-1, ОПК-5	ПК-1.1, ПК-1.2, ПК-1.3, ОПК-5.1, ОПК-5.2, ОПК-5.3
	Organisation of dental care in the Russian Federation		
Dental office organisation and equipment.	Basics of asepsis and antisepsis. Ergonomics in dentistry. Dental office equipment.		
	Basics of asepsis and antisepsis. Disinfection, sterilisation. Prevention of iatrogenic and infectious diseases (AIDS, hepatitis).		
Functional anatomy and physiology of the maxillofacial region. Histology of the maxillofacial system. Ontogenetic development of the tooth.	Функциональная анатомия. Основные группы зубов и их анатомо-топографические характеристики в возрастном аспекте		
	Влияние функций на формирование и развитие зубочелюстной системы. Анатомия и физиология зубов		
	Зубная формула. Зубные дуги и их форма на верхней и нижней челюсти. Окклюзионные кривые и плоскости. Понятие о зубной, альвеолярной и базальной дугах		
Functional anatomy and physiology of the maxillofacial region. Histology of the	Гистология зубочелюстной системы. Онтогенетическое развитие зуба		

maxillofacial system. Ontogenetic development of the tooth.			
Personal contact work	Personal contact work (credit)	ПК-1, ОПК-5	ПК-1.1, ПК-1.2, ПК-1.3, ОПК- 5.1, ОПК-5.2, ОПК-5.3
Dental instruments	Dental handpieces. Instruments used in surgical, therapeutic, orthopaedic and paediatric dentistry		
	Diagnostic instruments		
Examination methods for the dental patient.	Medical card of a dental patient		
	Dental examination, oral examination		
The concept of the periodontium. Dental deposits.	Structure of periodontal function		
	Dental plaque: types, diagnosis, treatment		
Dental materials	Temporary filling materials. Therapeutic restorative materials. Permanent restorative materials.		
	Construction materials. Auxiliary materials.		
Preparation of dental hard tissue	Methods of hard tissue preparation (mechanical, chemical-mechanical, pneumokinetic, acoustic, laser).		
	Set of burs and abrasives for aesthetic restorations of the anterior and posterior teeth with composite materials. Modern instruments and		

	accessories for filling of dental hard tissue defects, grinding and polishing fillings.		
Restoring the anatomical shape and function of the tooth	General principles of cavity preparation. Stages and techniques for the preparation of class 1 cavities. Techniques for filling class 1 decayed cavities. Metal-ceramic and metal-free, plastic, cast all-metal crowns: steps and rules of preparation, indications and contraindications, rules for determining tooth colour (VITA scale).	ПК-1, ОПК-5	ПК-1.1, ПК-1.2, ПК-1.3, ОПК-5.1, ОПК-5.2, ОПК-5.3
Methods for restoring dental defects	Stages and technique of preparation of grade 5 carious defects. Restoration of dental defects with light-curing composites. Types of adhesive systems; filling techniques - sandwich, linear, layered restorations, etc., indications and contraindications for the choice of filling technique.		
Anaesthesia in dentistry	General anaesthesia Local anaesthesia		
Endodontics	Fundamentals of endodontics Techniques for endodontic manipulation		
Tooth extraction operation	Tooth extraction operation		
Tooth extraction	Tooth extraction		ПК-1.1, ПК-1.2,

operation	technique. Instrumentation.		ПК-1.3, ОПК-5.1, ОПК-5.2, ОПК-5.3
Personal contact work	Personal contact work (examination)	ПК-1, ОПК-5	ПК-1.1, ПК-1.2, ПК-1.3, ОПК-5.1, ОПК-5.2, ОПК-5.3

#### 4.2. Scope of the discipline and types of academic work

Forms of control and types of academic work	Labor intensity of the discipline (module)				
	2	3	4	total	
1. Face-to-face work:	32,2	48	48,3	128,5	
In-class learning in total, including:	32	48	48	128	
Лекционные занятия (Лек)	16	16	16	48	
Лабораторные занятия (Лаб)	16	32	32	80	
Индивидуальная контактная работа (ИКР)	0,2		0,3	0,5	
2. Independent work of the student:	39,8	24	23,7	87,5	
3. Intermediate certification (exam) (зачет, экзамен)	3а		3а, Эж		
Total:	academic hours	72	72	108	252
	credit units	2	2	3	7

№ item	The section's (theme's) name	Face-to face work, including in the electronic information and educational environment, academic hours				IW, academic hours	Total, academic hours
		Lect.	Pr.	Lab.	ICW		
	The main stages in the development of dentistry. Introduction to the specialty. The dentoalveolar functional system.						
1	Aims and objectives of dentistry	2		2		4	8
2	Organisation of dental care in the Russian Federation	2		2		4	8
	Dental office organisation and equipment.						

3	Basics of asepsis and antisepsis. Ergonomics in dentistry. Dental office equipment.	2		2		4	8
4	Basics of asepsis and antisepsis. Disinfection, sterilisation. Prevention of iatrogenic and infectious diseases (AIDS, hepatitis).	2		2		4	8
	Functional anatomy and physiology of the maxillofacial region. Histology of the maxillofacial system. Ontogenetic development of the tooth.						
5	Функциональная анатомия. Основные группы зубов и их анатомо-топографические характеристики в возрастном аспекте	2		2		6	10
6	Влияние функций на формирование и развитие зубочелюстной системы. Анатомия и физиология зубов	2		2		6	10
7	Зубная формула. Зубные дуги и их форма на верхней и нижней челюсти. Окклюзионные кривые и плоскости. Понятие о зубной, альвеолярной и базальной дугах	2		2		6	10
8	Гистология зубочелюстной системы. Онтогенетическое развитие зуба	2		2		5,8	9,8
	Personal contact work						
9	Personal contact work (credit)				0,2		0,2
	Dental instruments						
10	Dental handpieces. Instruments used in surgical, therapeutic, orthopaedic and paediatric dentistry	2		4		2	8
11	Diagnostic instruments	2		4		4	10
	Examination methods for the dental patient.						
12	Medical card of a dental patient	2		4		2	8
13	Dental examination, oral examination	2		4		4	10

	The concept of the periodontium. Dental deposits.						
14	Structure of periodontal function	2		4		2	8
15	Dental plaque: types, diagnosis, treatment	2		4		4	10
	Dental materials						
16	Temporary filling materials. Therapeutic restorative materials. Permanent restorative materials.	2		4		2	8
17	Construction materials. Auxiliary materials.	2		4		4	10
	Preparation of dental hard tissue						
18	Methods of hard tissue preparation (mechanical, chemical-mechanical, pneumokinetic, acoustic, laser).	1		2		2	5
19	Set of burs and abrasives for aesthetic restorations of the anterior and posterior teeth with composite materials. Modern instruments and accessories for filling of dental hard tissue defects, grinding and polishing fillings.	1		2		2	5
	Restoring the anatomical shape and function of the tooth						
20	General principles of cavity preparation. Stages and techniques for the preparation of class 1 cavities. Techniques for filling class 1 decayed cavities.	1		2		2	5
21	Metal-ceramic and metal-free, plastic, cast all-metal crowns: steps and rules of preparation, indications and contraindications, rules for determining tooth colour (VITA scale).	1		2		2	5
	Methods for restoring dental defects						
22	Stages and technique of preparation of grade 5 carious defects.	2				2	4

23	Restoration of dental defects with light-curing composites. Types of adhesive systems; filling techniques - sandwich, linear, layered restorations, etc., indications and contraindications for the choice of filling technique.			5		2	7
	Anaesthesia in dentistry						
24	General anaesthesia	1		2		2	5
25	Local anaesthesia	1		2		2	5
	Endodontics						
26	Fundamentals of endodontics	1				2	3
27	Techniques for endodontic manipulation	3		8		2	13
	Tooth extraction operation						
28	Tooth extraction operation	2				2	4
29	Tooth extraction technique. Instrumentation.	2		7		1,7	10,7
	Personal contact work						
30	Personal contact work (examination)				0,3		0,3
Total academic hours		48		80	0,5	87,5	252

#### 4.3. Summary of the discipline (module), structured by sections (topics)

##### Раздел 1. The main stages in the development of dentistry. Introduction to the specialty. The dentoalveolar functional system.

##### Тема 1. Aims and objectives of dentistry

Лекционное занятие. The aims and objectives of dentistry. The role of domestic scientists in the formation of dentistry. Dentistry as a unified section of general medicine, its relationship with other sciences. The place of propaedeutics in the system of dental education.

Лабораторное занятие. Aims and objectives of dentistry

##### Тема 2. Organisation of dental care in the Russian Federation

Лекционное занятие. The organisation of dental care in the Russian Federation. Introduction to the specialty. Dentistry as a single section of general medicine, its relationship with other sciences (physics, mathematics, chemistry, etc.).

Лабораторное занятие. Organisation of dental care in the Russian Federation

## **Раздел 2. Dental office organisation and equipment.**

### **Тема 3. Basics of asepsis and antisepsis. Ergonomics in dentistry. Dental office equipment.**

Лекционное занятие. Basics of asepsis and antisepsis. Ergonomics in dentistry. Dental office equipment.

Лабораторное занятие. Basics of asepsis and antisepsis. Ergonomics in dentistry. Dental office equipment.

### **Тема 4. Basics of asepsis and antisepsis. Disinfection, sterilisation. Prevention of iatrogenic and infectious diseases (AIDS, hepatitis).**

Лекционное занятие. Basics of asepsis and antisepsis. Disinfection, sterilisation. Prevention of iatrogenic and infectious diseases (AIDS, hepatitis).

Лабораторное занятие. Basics of asepsis and antisepsis. Disinfection, sterilisation. Prevention of iatrogenic and infectious diseases (AIDS, hepatitis).

## **Раздел 3. Functional anatomy and physiology of the maxillofacial region. Histology of the maxillofacial system. Ontogenetic development of the tooth.**

### **Тема 5. Функциональная анатомия. Основные группы зубов и их анатомо-топографические характеристики в возрастном аспекте**

Лекционное занятие. Функциональная анатомия. Основные группы зубов и их анатомо-топографические характеристики в возрастном аспекте

Лабораторное занятие. Функциональная анатомия. Основные группы зубов и их анатомо-топографические характеристики в возрастном аспекте

### **Тема 6. Влияние функций на формирование и развитие зубочелюстной системы. Анатомия и физиология зубов**

Лекционное занятие. Влияние функций на формирование и развитие зубочелюстной системы. Анатомия и физиология зубов

Лабораторное занятие. Влияние функций на формирование и развитие зубочелюстной системы. Анатомия и физиология зубов

### **Тема 7. Зубная формула. Зубные дуги и их форма на верхней и нижней челюсти. Окклюзионные кривые и плоскости. Понятие о зубной, альвеолярной и базальной дугах**

Лекционное занятие. Зубная формула. Зубные дуги и их форма на верхней и нижней челюсти. Окклюзионные кривые и плоскости. Понятие о зубной, альвеолярной и базальной дугах

Лабораторное занятие. Зубная формула. Зубные дуги и их форма на верхней и нижней челюсти. Оклюзионные кривые и плоскости. Понятие о зубной, альвеолярной и базальной дугах

### **Тема 8. Гистология зубочелюстной системы. Онтогенетическое развитие зуба**

Лекционное занятие. Гистология зубочелюстной системы. Онтогенетическое развитие зуба

Лабораторное занятие. Гистология зубочелюстной системы. Онтогенетическое развитие зуба

## **Раздел 5. Dental instruments**

### **Тема 10. Dental handpieces. Instruments used in surgical, therapeutic, orthopaedic and paediatric dentistry**

Лекционное занятие. Dental instruments. Dental handpieces. Instruments used in surgical, therapeutic, orthopaedic and paediatric dentistry. Personal protective equipment for dentist. Diagnostic instruments. Dental handpieces, rules of operation, varieties. micromotors. Rules for operation, types of varieties.

Лабораторное занятие. Dental handpieces. Instruments used in surgical, therapeutic, orthopaedic and paediatric dentistry.

### **Тема 11. Diagnostic instruments**

Лекционное занятие. Diagnostic instruments. Dental handpieces. Instruments used in surgical, therapeutic, orthopaedic and paediatric dentistry. Stand-alone handpieces for special types of work. Instruments and appliances for determining tooth mobility and for diagnosis of periodontal disease. Tips for photopolymerisation of light-curing materials. Laser handpieces. Handpieces for electrocoagulation. Rotary instruments. Types of materials that cover the working part of the instrument (diamond, silicone burs). Shape of instrument working part. Abrasive materials.

Лабораторное занятие. Diagnostic instruments.

## **Раздел 6. Examination methods for the dental patient.**

### **Тема 12. Medical card of a dental patient**

Лекционное занятие. The medical record of a dental patient. Formation.

Лабораторное занятие. Correct examination and preparation of the medical record of a dental patient - record form No. 043/U. International Classification of Dental Diseases, Injuries and Causes of Death based on ICD-10.

### **Тема 13. Dental examination, oral examination**

Лекционное занятие. Dental examinations, oral examinations. Radiological examination of the teeth, jaws, magnetic resonance imaging (MRI). Electroodontodiagnostics. Rheography. Laser Doppler flowmetry. Cytological analysis of saliva.

Лабораторное занятие. Radiological examinations of the teeth, jaws and magnetic resonance imaging (MRI).

Additional methods of examination. Electroodontodiagnostics. Rheography. Laser Doppler flowmetry. Cytological analysis of saliva.

### **Раздел 7. The concept of the periodontium. Dental deposits.**

#### **Тема 14. Structure of periodontal function**

Лекционное занятие. The structure of periodontal function. Periodontium. Gingiva. Periosteum. Gingival groove. Function of the periodontium. Periodontal fibres. Fibres of the marginal periodontium. Circumferential ligament of the tooth.

Лабораторное занятие. The structure of periodontal function. Periodontium. Gingiva. Periosteum. Gingival groove. Periodontal fibres. Fibres of the marginal periodontium. Circumferential ligament of the tooth.

#### **Тема 15. Dental plaque: types, diagnosis, treatment**

Лекционное занятие. Dental plaque: types, diagnosis, treatment. Non-mineralised soft dental deposits. Non-mineralised hard dental deposits. Cuticle. Pellicle. Tartar. Inflammatory periodontal condition. Oral hygiene indices. Methods for removal of dental plaque. Products used in the removal of dental plaque.

Лабораторное занятие. Non-mineralised soft dental deposits.

Non-mineralised hard dental deposits. Pellicle formation. Formation of tartar. Inflammatory periodontal condition.

Oral hygiene indices. Methods for removal of dental plaque. Products used in the removal of dental plaque.

### **Раздел 8. Dental materials**

#### **Тема 16. Temporary filling materials. Therapeutic restorative materials. Permanent restorative materials.**

Лекционное занятие. Temporary filling materials. Therapeutic restorative materials. Permanent filling materials. Requirements for these materials.

Лабораторное занятие. Zinc-eugenol cements.

Eugenol-free cements.

Light-curing materials.

Indications and contraindications.

#### **Тема 17. Construction materials. Auxiliary materials.**

Лекционное занятие. Biological and combined treatment pads. Structural materials. Auxiliary materials. Indications and contraindications.

Лабораторное занятие. Metals and alloys for dentistry.

Metal alloys for metal-ceramic denture frameworks.

Plastics.

Auxiliary materials.  
Moulding materials.  
Impression (impression materials).

## **Раздел 9. Preparation of dental hard tissue**

### **Тема 18. Methods of hard tissue preparation (mechanical, chemical-mechanical, pneumokinetic, acoustic, laser).**

Лекционное занятие. Methods of preparing dental hard tissue (mechanical, chemical-mechanical, pneumokinetic, acoustic, laser).

Лабораторное занятие. Opening of carious cavities.  
General principles of cavity preparation.  
Stages and technique of preparation of class 2 carious defects.

Лабораторное занятие. Techniques for filling class 2 carious defects.  
Peculiarities of preparation.

### **Тема 19. Set of burs and abrasives for aesthetic restorations of the anterior and posterior teeth with composite materials. Modern instruments and accessories for filling of dental hard tissue defects, grinding and polishing fillings.**

Лекционное занятие. Sets of drills and abrasives for aesthetic restorations of the anterior and posterior teeth with composite materials. Modern tools and accessories for filling dental hard tissue defects, grinding and polishing fillings. Sets of drills and abrasives for aesthetic restorations of the anterior and posterior teeth with composite materials. Modern tools and accessories for filling dental hard tissue defects, grinding and polishing fillings.

Лабораторное занятие. Sets of drills and abrasives for aesthetic restorations of the anterior and posterior teeth with composite materials.

Лабораторное занятие. Modern tools and accessories for the filling of dental hard tissue defects, grinding and polishing fillings.

## **Раздел 10. Restoring the anatomical shape and function of the tooth**

### **Тема 20. General principles of cavity preparation. Stages and techniques for the preparation of class 1 cavities. Techniques for filling class 1 decayed cavities.**

Лекционное занятие. Restoration of the anatomical shape and function of the tooth.

Лабораторное занятие. General principles of cavity preparation.  
Stages and technique for the preparation of class 1 carious defects.

Лабораторное занятие. Techniques for filling class 1 carious defects.

**Тема 21. Metal-ceramic and metal-free, plastic, cast all-metal crowns: steps and rules of preparation, indications and contraindications, rules for determining tooth colour (VITA scale).**

Лекционное занятие. Metal-ceramic and metal-free, plastic, cast all-metal crowns: steps and rules of preparation, indications and contraindications for their use, rules for determining the colour of teeth (VITA scale).

Лабораторное занятие. Metal-ceramic and metal-free, plastic, cast all-metal crowns.

Лабораторное занятие. Stages and rules for preparation indications and contraindications, rules for determining tooth colour (VITA scale).

**Раздел 11. Methods for restoring dental defects**

**Тема 22. Stages and technique of preparation of grade 5 carious defects.**

Лекционное занятие. Stages and technique of preparation of carious defects of grades 1 - 6.

Techniques for filling carious defects of grades 1 to 6.

Лекционное занятие. Repairing dental defects with light-curing composites.

Types of adhesive systems.

Filling techniques: sandwich, linear, layered restorations etc.

Indications and contraindications for the choice of filling technique.

**Тема 23. Restoration of dental defects with light-curing composites. Types of adhesive systems; filling techniques - sandwich, linear, layered restorations, etc., indications and contraindications for the choice of filling technique.**

Лабораторное занятие. Repairing dental defects with light-curing composites.

Лабораторное занятие. Types of adhesive systems.

Лабораторное занятие. Filling techniques: sandwich, linear.

Лабораторное занятие. Techniques for filling carious defects of grades 1 to 6.

**Раздел 12. Anaesthesia in dentistry**

**Тема 24. General anaesthesia**

Лекционное занятие. General anaesthesia. Indications, contraindications. Carrying out anaesthesia in hospital. Features of endotracheal anaesthesia. Conducting anaesthesia in the outpatient clinic.

Лабораторное занятие. Conducting anaesthesia in hospital.  
Features of endotracheal anaesthesia.  
Carrying out anaesthesia in an outpatient clinic.  
Pharmacological agents used for anaesthesia in the clinic.

Лабораторное занятие. Pharmacological agents used for anaesthesia in the clinic.

## **Тема 25. Local anaesthesia**

Лекционное занятие. Local anaesthetics. Anaesthetics used for local anaesthesia. Non-injection anaesthesia. Injection anaesthesia.

Лабораторное занятие. Anaesthetics used for local anaesthesia.

Лабораторное занятие. Non-injection anaesthesia.  
Injection anaesthesia.

## **Раздел 13. Endodontics**

### **Тема 26. Fundamentals of endodontics**

Лекционное занятие. The basics of endodontics. The concept of endodontics. Root canal obturations. Endodontic instruments. Classification, ISO standardization. Purpose, sequence of their use.

### **Тема 27. Techniques for endodontic manipulation**

Лекционное занятие. Techniques for endodontic manipulation. Errors and complications in endodontic treatment. Signs of perforation of the floor of the cavity and the root wall. Peculiarities of the treatment of curved root canals.

Лекционное занятие. Endodontic instruments for manual application. Techniques for passage and enlargement of root canals.

Лекционное занятие. Topographic and anatomical features of the cavities of the different tooth groups. Methods of endodontic manipulations in different groups of upper and lower jaw teeth.

Лабораторное занятие. Endodontics.  
Errors and complications in caries treatment.  
Prevention of their elimination.

Лабораторное занятие. Temporary and permanent root canal obturation.

Materials for temporary and permanent root canal filling.  
Modeling 1.6, 2.6, 1.5, 4.5 teeth.

Лабораторное занятие. Endodontic instruments for manual application.  
Techniques for passage and enlargement of root canals.

Лабораторное занятие. Endodontic tools for machine use.  
Bormachines.  
Tips.  
Modeling 1.2, 2.2, 3.2, 4.2 teeth.

Лабораторное занятие. Treatment methods for pulpitis.  
Biologic method and vital amputation.  
Vital and devital extirpation.

Лабораторное занятие. Determination of root canal length. Appliances.

Лабораторное занятие. Methods of devital amputation.  
Preparations and methods of root canal medication.  
Modelling of 1.4, 1.3, 4.3, 4.4 teeth.

Лабораторное занятие. Errors and complications during treatment with endodontic instruments.  
Perforation of the root wall of the tooth.

## **Раздел 14. Tooth extraction operation**

### **Тема 28. Tooth extraction operation**

Лекционное занятие. Tooth extraction surgery. Indications and contraindications for tooth extraction surgery. Peculiarities of preparing the patient and doctor for the operation. Position of the patient and doctor during tooth extraction operation. Deontology and medical ethics. Aseptic and antiseptic when operating on the face and oral cavity. Prevention of HIV and hepatitis.

Лекционное занятие. Tooth extraction surgery. Local anaesthetics and medications used for local anaesthesia. Premedication. Selection of anaesthetics and preparation of the patient for the intervention for co-morbidities in the elderly. Methods of anaesthesia for surgical interventions on the upper and lower jaws.

### **Тема 29. Tooth extraction technique. Instrumentation.**

Лекционное занятие. Tooth extraction technique. Instrumentation. Tools for tooth extraction. Forceps and elevators. Features of removal of different groups of teeth and roots of the upper and lower jaw. Teeth root extraction operation. Wound care and treatment after tooth extraction.

Лекционное занятие. The occurrence of complications during and after a tooth extraction. Causes. Diagnostics. Prevention. Wound care and treatment after tooth extraction. Wound healing after tooth extraction.

Лабораторное занятие. Local anaesthetics and medications used for local anaesthesia.  
Premedication.

Лабораторное занятие. The choice of anaesthesia and preparation of the patient for the intervention in elderly co-morbidities.

Лабораторное занятие. Methods of anaesthesia for upper and lower jaw surgery.

Лабораторное занятие. Local complications of local anaesthesia.  
General complications of local anaesthesia.  
Causes. Diagnosis. Treatment. Prevention.

Лабораторное занятие. Peculiarities of extracting different groups of teeth and roots of the upper and lower jaw.

The operation of tooth root extraction.  
Treatment and care of wounds after tooth extraction.

Лабораторное занятие. Treatment and care of wounds after tooth extraction.  
Wound healing after tooth extraction.

Лабораторное занятие. Instrumentation for tooth and root extraction on the upper and lower jaws.

## **5. Educational technologies**

To implement the competence-based approach in the study of the discipline (module), extensive use of active and interactive methods of conducting classes in the educational process is provided:

The following forms of classes and educational technologies are used in the discipline:  
lectures - for the presentation of new material an interactive form of the lesson can be used;

multimedia tools (electronic boards, projectors) - to improve the quality of perception of the studied material;

laboratory classes - to develop clinical thinking and actively seek ways and means of solving the problem in question.

## **6. Forms of control and types of evaluation materials for the discipline (module)**

Intermediate attestation - evaluation of intermediate and final results of training in the discipline (module).

### **6.1. Sample list of questions for the credit test**

1. Types and principles of dental units. Tips, types, fixation.
2. Rotation speed of burs. Drills, classification (material, shape of working surface,

abrasivity, fixation method, application). Designation of drills.

3. Methods of saliva isolation (relative and absolute dryness). Cofferdam.

4. Dental instrumentation: probe, mirror, forceps, smoothing tool, spatula, corkscrew, excavator. Types, functions, working techniques.

5. Formula of temporary and permanent bite teeth (graphic-numeric and two-digit notation). Signs of tooth belonging. General (no less than 10) and special differences between temporary and permanent teeth. 6.

6. Permanent teeth of upper and lower jaws: anatomical structure, topography of the tooth cavity.

7. Temporary teeth of upper and lower jaws: anatomical structure, topography of the dental cavity.

8. Layer structure of SOPR, types and characteristics. Enamel, dentine, cementum. Chemical composition, histological structure, functions. 9.

9. Pulp, histological structure, layer structure, functions. Periodontium, histological structure, direction of collagen fibre bundles, functions. 10.

10. Eruption, theories of eruption. Timing of eruption and formation of temporary and permanent teeth.

## **6.2. Sample list of questions for the examination**

I part

1. Introduction to the specialty. Dentistry, its content, sections, relation to other medical specialties.

2. Dentistry. Stages of development. Contribution of Russian scientists to formation of stomatological science (N.V. Sklifosovsky, A.K. Limberg, P.G. Dauge, E.E. Platonov, I.G. Lukomski, S.I. Weiss, L.R. Rubin and others).

3. medical ethics and deontology in dentistry. Doctor-patient, doctor-nurse, doctor-assistant relationships. 4.

Organization of a dental polyclinic. 4. Regulations of stomatological polyclinic. Order of USSR Ministry of Health #1166 from 10.12.76. Structure of a dental polyclinic. Categorization. State regulations.

5. Organization of a dental office. Equipment of the office. Sanitary and hygienic norms. Organization of work of the dental office. Documentation. 6.

Ergonomic basics of organization of a dentist's workplace. Work in four hands. Prophylaxis of professional diseases. 7.

7. Dental units. Classifications. Design of dental units. Rules of operation. Care. Safety precautions.

8. Types of dental unit hoses (flexible, rigid, turbine). Design. Application. Handling procedures.

9. Dental handpieces. Types of handpieces. Construction. Technical and working characteristics, peculiarities of application of handpieces. Micromotors. Care rules for dental handpieces. 10.

10. Instruments used in dentist's office. Classification (groups of instruments). Purpose. Dental "trio".

11. Dental burs. Classification (material, shape of working part, size, etc.). Construction. Purpose. Application.

12. Steel and carbide burs. Structure. Methods of fabrication. Special applications. Colour coding. Purpose.

13. Diamond burs. Structure. Manufacturing. Colour coding. Selection criteria for diamond drills. Disposable diamond drills. Usage.

14. Modern modified cutting tools. Turbo tools. Depth markers. Features of construction. Application.

15. Tools for processing fillings. Structure. Classification according to

abrasiveness. Indications for use.

16. Sources of infection, routes of infection. Concepts of asepsis and antisepsis. Types of asepsis and antisepsis.

17. Disinfection. Types of disinfection. Disinfectants used. Rules for working with them. First aid measures for poisoning.

18. Sterilization. Types of sterilization. Means. Parameters of physical factors. Control of sterilisation.

19. Prevention of infectious diseases (hepatitis, AIDS) in dentistry. Measures to prevent infection of medical personnel with infectious diseases. "Seven rules of doctor's protection. Anti-AIDS first aid kit. 20.

20. Semiology in dentistry. Basic and additional methods of examination of the dental patient. Preliminary and final diagnosis. Filling out medical records.

21. Periodontium. Composition, structure, functions. Concept of periodontics. Main periodontal pathologies. Examination methods. RMA index.

22. Evaluation of hygienic state of the oral cavity. Determination of hygiene indices (Fedorov-Volodkina, Green-Vermillion). Individual recommendations for oral care, selection of hygiene products.

23. Dental plaque. Classification of dental plaque. Mechanism and time of formation. Impact of dental plaque on the occurrence of dental diseases. Techniques for removal of dental plaque. Tools.

24. Teeth, their structure. Anatomical and numerical notations (according to WHO) of the tooth surfaces. Formation of bites (according to age). Classification of permanent and temporary teeth by dental formula. Different tooth marking systems (Sigmond-Palmer, two-digit).

25. Dental rows, their structure. Shapes of upper and lower jaws. Dental arches and their shapes. Structure, functions of the mucous membrane of the different parts of the oral cavity.

26. Clinical anatomy of permanent teeth. Signs of tooth affiliation. Clinical anatomy of temporary teeth. Distinguishing features of permanent and temporary teeth.

27. enamel. Histological structure, chemical composition, functions. Concept of mineralisation, demineralisation and remineralisation of enamel. Age-related changes in enamel.

28. Cement. Chemical composition, histological structure and functions. Types of cement. Age-related changes of cement. Cementitelles. Types, location.

29. Pulp. Histological structure, chemical composition. Blood supply and peculiarities of innervation. Functions. Age-related changes of the pulp. Denticles. Types. Location.

30. Periodontium. Structure, innervation, blood supply, functions of periodontium. Role of collagen fibres in distribution of masticatory pressure.

31. Development of temporary and permanent teeth. Stages. Timing of setting, mineralisation, eruption, final root formation. The eruption of the tooth. Changes in the tissues of the alveolar process during tooth eruption. Theories of tooth eruption.

32. Filling materials. Classification. Properties. Requirements for them.

33. Temporary sealing materials. Requirements. Representatives. Indications for use. Methods of application.

34. Filling materials for therapeutic linings. Classification. Requirements. Representatives. Indications for use. Techniques for use in various clinical situations.

35. Sealing materials for insulating pads. Types of insulating pads. Requirements. Representatives. Indications for use. Methods of application.

36. Permanent filling materials. Classification. Requirements for permanent filling materials.

37. Cements. Classification. General properties. Indications for use.

Polycarboxylate cement. Chemical composition. Properties. Indications for use. Representatives.

38. Mineral cements based on phosphoric acid. Zinc phosphate cement. Silicate cement. Silica-phosphate cement. Chemical composition. Properties. Indications for use. Representatives.

39. Glass ionomer cements. Classification. Traditional glass ionomer cements. Aqua glass ionomer cements. Composition. Curing mechanism. Positive properties and disadvantages. Indications for use. Representatives.

40. Hybrid glass ionomer cements. Composition. Curing mechanism. Positive properties and disadvantages. Indications for use. Representatives.

41. Compomers. Composition. Properties. Indications for use. Representatives.Ormocers. Composition. Properties. Indications for use. Representatives.

42. Metal filling materials. Classification. General characteristics. Amalgam. Filling technique. Tools. Safety measures when working with amalgam. Gallium alloys. Chemical composition. Positive and negative properties. Indications for use. Representatives.

43. Silver amalgam. Copper amalgam. Chemical composition. Positive and negative properties. Indications for use. Representatives. Metal filling materials.

44. Composite filling materials. Classification (purpose, type of curing, particle size of filler, consistency). Composition.

45. Composite materials of chemical curing. Composition, properties, polymerization mechanism. Representatives.

46. Light-curing composites. Polymerization mechanism. Types of photopolymerizers. Advantages and disadvantages of light-curing CPMs.

47. Macro-filled, mini-filled, micro-filled, non-homogeneous micro-filled composites. Composition. Positive and negative properties. Indications for use. Representatives.

48. Hybrid (micro-hybrid, nano-hybrid) composite materials. Classification. Characteristics of properties. Representatives.

49. Flowable and condensable composites. General characteristics. Positive and negative properties. Indications for use. Representatives.

50. Mechanisms of bonding of CPM to enamel and dentin. Enamel bonding agents (adhesives). Wet bonding concept. Priming. Lubricated layer. Concept of the hybrid layer.

51. Adhesive systems. Classification. Components. Application technique (stages). Representatives.

52. Caries. Basic classifications of caries. Black classification of cavities. Purpose of treatment of caries. Mechanism of carious cavity formation. Rules of preparation of carious cavities, medicinal treatment. Principles of carious cavity preparation.

53. The dento-alveolar functional system. Skeleton of the masticatory system. Counterforcements. Chewing and masticatory muscles, attachment points, functions.

54. Biomechanics of the lower jaw. Articulation. Occlusion. Occlusal plane. Sagittal occlusal curve. Spee curve. Transversal occlusal curves.

55. Occlusion. Types of occlusion. Characteristics of the different types of occlusion. Types of masticatory tooth contacts. State of relative physiological rest. Signs. Central occlusion. Signs (main and supplementary).

56. Anterior occlusions. Three-point contact according to Bonville. Hanau's articulatory five. Sagittal incisal pathway. Angle of the sagittal incisal pathway. Sagittal articular pathway. Angle of the sagittal articular pathway.

57. Lateral occlusions. Working and balancing sides. Concepts of tooth contacts in lateral occlusions. Lateral articular pathway. The angle of the articular path. Lateral incisal pathway. Angle of the lateral incisal pathway.

58. Temporomandibular joint. Structure, topography. Phases of chewing.

Concept of muscular-stable position of the head of the lower jaw. Vertical movements of the lower jaw. Muscles involved in opening and closing of the mouth. Movements of the articular heads in the joint.

59. Bite. Physiological and pathological types of bite. Particular signs of physiological and pathological bites. Anatomical and functional structure and biomechanics of the periodontium. Principles of treatment of dentoalveolar anomalies. Tissue reactive changes in periodontium.

60. Classification of materials used in orthopedic dentistry. Impregnation materials. Requirements made to impression materials. Classification. Characteristics of properties.

61. Waxes and wax compositions. Classification. Chemical composition. Physical and mechanical properties. Indications and contraindications for use. Technology of work with waxes.

62. Gypsum. Classification. Physical and mechanical properties. Technology of making gypsum models.

63. Methods for determining central occlusion. Methods for determining central occlusion in the complete absence of teeth. Apparatuses which reproduce the movements of the mandible. Occluders and articulators.

64. Semiology in dental hard tissue pathology of various etiologies. Classification of dental hard tissue defects. The concept of IROPZ, its significance in the choice of treatment of dental defects. Inlays and veneers. Types. Indications and contraindications for use. Clinical and laboratory stages of fabrication

65. Drawing of tooth 1.7 in three projections: medial, vestibular, masticatory surfaces.

66. Drawing of tooth 1.7 in three projections: oral, distal, masticatory surfaces.

67. Draw tooth 1.6. in three projections: distal, oral, cheek surfaces.

68. Draw tooth 1.6. in three projections: medial, cheek, masticatory surfaces.

69. Draw tooth 2.7. in three projections: masticatory, oral, medial surfaces.

70. Draw tooth 2.7. in three projections: masticatory, distal, cheek surfaces.

71. Draw tooth 1.5. in three projections: distal, cheek, medial surfaces.

72. Draw tooth 1.4. in three projections: distal, oral, masticatory surfaces.

73. Draw tooth 2.4. in three projections: medial, oral, masticatory surfaces.

74. Draw tooth 2.5. in three projections: distal, oral, masticatory surfaces.

75. Draw tooth 3.4. in three projections: medial, oral, chewing surfaces.

76. Draw tooth 3.4. in three projections: medial, cheek, distal surfaces.

77. Draw tooth 3.6. in three projections: medial, cheek, masticatory surfaces.

78. Draw tooth 6.5. in three projections: distal, oral, masticatory surfaces.

79. Draw tooth 4.7. in three projections: medial, cheek, masseter.

80. Draw tooth 3.7. in three projections: medial, cheek, masticatory surfaces.

81. Draw tooth 3.7. in three projections: distal, oral, masseter surfaces.

82. Draw tooth 3.5. in three projections: cheek, oral, medial surfaces.

83. Draw tooth 4.5. in three projections: oral, medial, masseter surfaces.

84. Draw tooth 4.4. in three projections: cheek, oral, medial surfaces.

85. Draw tooth 1.1. in three projections: distal, medial, vestibular surfaces.

86. Draw tooth 1.2. in three projections: distal, vestibular, oral surfaces.

87. Draw tooth 2.1. in three projections: distal, oral, vestibular surfaces.

88. Draw tooth 1.3. in three projections: medial, oral, vestibular.

89. Draw tooth 3.3. in three projections: distal, oral, vestibular surfaces.

90. Draw tooth 4.3. in three projections: medial, oral, vestibular surfaces.

91. Draw tooth 3.1. in three projections: distal, oral, vestibular.

92. Draw tooth 3.2. in three projections: vestibular, medial, distal surfaces.

93. Draw tooth 1.3. in three projections: vestibular, medial, oral surfaces.

94. Draw tooth 2.3. in three projections: vestibular, medial, distal surfaces.
95. Draw tooth 2.6. in three projections: oral, medial, medial surfaces.
96. Draw tooth 2.6. in three projections: vestibular, distal, oral.
97. Draw tooth 7.4. in three projections: vestibular, medial, oral.
98. Draw tooth 4.6. in three projections: vestibular, medial, oral.
99. Draw tooth 4.6. in three projections: distal, medial, oral.
100. Draw tooth 1.6. in three projections: vestibular, medial, oral surfaces.
101. Draw tooth 1.6. in three projections: vestibular, medial, oral.
102. Draw tooth 2.3. in three projections: vestibular, medial, oral.
103. Draw tooth 2.2. in three projections: vestibular, medial, oral.
104. Draw tooth 1.7. in three projections: vestibular, oral, distal.
105. Draw tooth 1.7. in three projections: vestibular, oral, distal.
106. Draw tooth 4.4. in three projections: vestibular, medial, distal.
107. Draw tooth 3.6. in three projections: oral, medial, masticatory surfaces.
108. Draw tooth 3.6. in three projections: distal, cheek, masticatory surfaces.
109. Draw tooth 2.4. in three projections: distal, cheek, medial surfaces.
110. Draw tooth 3.7. in three projections: medial, cheek, oral surfaces.
111. Draw tooth 2.5. in three projections: distal, oral, medial surfaces.
112. Draw tooth 1.2 in three projections: medial, vestibular, oral surfaces.
113. Draw tooth 1.5 in three projections: medial, vestibular, oral surfaces.
114. Draw tooth 5.5. in three projections: medial, masseter, oral surfaces.
115. Draw tooth 5.4. in three projections: medial, masseter, oral.
116. Draw tooth 7.5. in three projections: medial, masseter, oral surfaces.
117. Draw tooth 8.4. in three projections: medial, masticatory, oral.
118. Draw tooth 6.4. in three projections: distal, masticatory, oral.
119. Draw tooth 6.5. in three projections: medial, masticatory, vestibular.
120. Draw tooth 3.6. in three projections: distal, masticatory, medial surfaces.
121. Draw the tooth 2.6. in three projections: medial, vestibular, oral.
122. Draw tooth 3.6. in three projections: distal, masticatory, oral.
123. Draw tooth 8.5. in three projections: distal, masticatory, oral.
124. Draw tooth 5.1 in three projections: vestibular, medial, oral surfaces.
125. Draw tooth 5.5. in three projections: distal, masticatory, vestibular.
126. Draw tooth 7.4. in three projections: medial, masticatory, vestibular.
127. Draw tooth 8.5. in three projections: medial, masticatory, vestibular.
128. Draw tooth 7.1. in three projections: distal, medial, vestibular.
129. Draw tooth 5.5. in any of the three projections.
130. Prepare the dental unit.
131. Select and install the appropriate burs in the dental handpieces.
132. Explain the possible options for the formation of carious cavities of grade I.
133. To select the filling material for the filling of the cavity  
The choice of filling material for cavity class I Black. Explain the choice.
134. Making impressions from the upper jaw with alginate materials.
135. To choose the filling material for the filling of the cavity.  
Black class II. Justify the choice.
136. Choose a filling material for filling a cavity in Black Class III. Justify the choice.
137. Prepare a minimum set of tools for the diagnosis of dental and periodontal diseases.  
Justify the choice.
138. Select and install a spherical diamond bur in the turbine.
139. Stages of filling carious cavities with self-curing composite filling material.
140. Name the type of occlusion in which the bite is determined. Describe the relationship between the upper and lower jaw teeth in an orthognathic bite.

141. Carry out a diagnostic examination of tooth 3.4 using a dental angle probe and a mirror.
142. Sequence of reading the radiographs.
143. Technique of filling with amalgam of carious cavity grade I.
144. Selection of impression tray for taking impressions of the upper jaw.
145. Making impressions of the lower jaw with alginate materials.
146. Selection of impression tray for taking impressions from edentulous jaws.
147. Selection of impression material for inlay prosthetics.
148. Rules for taking compression impressions.
149. Rules for taking relieving impressions.
150. Rules for obtaining functional impressions.
151. Stages of processing dental instruments.
152. Making individual impression trays.
153. Stages of preparation of carious cavity grade II.
154. Making plaster impressions.
155. Stages of filling a cavity with packable composite materials.
156. Stages of obtaining a plaster model from an impression.
157. Examination of the temporomandibular joint.
158. Examination and palpation of the lymph nodes of the head and neck.
159. Stages of filling a carious cavity with traditional glass ionomer materials.
160. Methods for determining the failure of fillings.
161. Filling of carious cavity with flowable composite materials.
162. Determine to what class of Black's classification is a cavity located on the distal surface of the tooth and extending to the masticatory surface.
163. To determine the class of cavity located in the fossa on the cheek surface of the tooth, extending to the posterior surface of the tooth.
164. Fit the diamond back cone drill into the turbine.
165. Place the carbide cylindrical bur in the contra-angle handpiece for the micromotor.
166. Fit the steel wheel-type bur to the straight handpiece for the rigid and flexible hose.
167. The stages of preparation of a Black's Class III carious cavity.
168. Indicate the modes of preparation.
169. Creation of conditions of absolute dryness in the oral cavity.
170. Creation of conditions of relative dryness in the oral cavity.
171. Black class IV carious cavity preparation.
172. Prepare a set of instruments for examination of the carious cavity.
173. Placement of the matrix when filling a cavity of II class carious cavity.
174. Calculation of chewing efficiency.
175. Calculation of the Fedorov-Volodkina Hygiene Index.
176. Calculate the PMA index.
177. Selection of tools (drills) for the preparation of carious cavity grade I.
178. Rules for positioning the mandible in the central occlusion position.
179. The use of matrices for filling carious cavities of grade III.
180. Methods for stopping capillary bleeding when filling cavities.
181. Examination of teeth with application of percussion method.
182. Algorithm of action when a patient's blood gets on the exposed skin of medical personnel.
183. Staged filling of the cavity with triple-cured glass ionomer cements.
184. Application of the healing pad on the bottom of the cavity for deep caries under a temporary filling.
185. Application of the therapeutic pad on the bottom of the cavity in carious

cavity with deep caries under a permanent filling.

186. The choice of the optimum filling material for the treatment of deep cavities of tooth 8.5.

187. Algorithm of actions in case of contamination of workwear with blood or other biological material.

188. Select tools for placing a filling material into the cavity and modeling a filling.

189. Algorithm of actions in case of wound with tools contaminated with blood or biological fluids. 190.

190. Prepare turbine handpiece and optimum set of drills.

191. Prepare micromotor contra-angle handpiece and optimum set of drills. 192.

192. Prepare plaque removal instrument set.

193. Stages of combined sanitation of dental instruments.

194. Algorithm of actions in case of an emergency situation if the patient is known (HIV-infected).

## Part II

1. Organization and structure of dental polyclinic, departments, dental office. Sanitary and hygienic norms.

2. Ergonomics in dentistry. Organization of dentist's workplace. Modern equipment of dentist's workplace. Hand treatment, gloves. Safety rules. 3.

3. Definition of aseptic, antiseptic, disinfection and sterilization of instruments. Stages of treatment of medical devices. 4.

4. Types and principles of dental units. Dental handpieces: types, fixation.

5. Rotation speed of burs. Drills, classification (material, shape of working surface, abrasivity, fixation method, application). Designation of drills.

6. Methods and means of tooth isolation from saliva (cofferdam, rubberdam, saliva ejector, cotton rolls, etc.). Methods of application.

7. Hygiene indices for detection of dental plaque (Fedorov-Volodkina, Green-Vermillion). Hygiene indices to assess the intensity and extent of inflammatory process in periodontal tissues (Schiller-Pisarev test, PMA index).

8. Temporary and permanent bite teeth formula (graphic-numeric and two-digit notation). Signs of tooth belonging. General (at least 10) and specific differences between temporary and permanent bite teeth

9. Permanent teeth of upper and lower jaws: anatomical structure, topography of the dental cavity.

10. Temporary teeth of upper and lower jaws: anatomical structure, topography of the dental cavity.

11. Layer structure of SOPR, types and characteristics. Enamel, dentin, cementum. Chemical composition, histological structure, functions.

12. Pulp: histological structure, layer structure, functions. Periodontium, histological structure, direction of collagen fibre bundles, functions.

13. Eruption, theories of eruption. Timing of eruption and formation of temporary and permanent teeth.

14. Classification of filling materials. Requirements for permanent restorative materials.

15. Temporary filling materials. Insulating, therapeutic fillings. Requirements. Representatives. Indications for use.

16. Glass ionomer cements. Classification. Composition. Properties. ART technique (preparation, filling). Open and closed sandwich.

17. Composite filling materials. Composition. Classification. Curing methods of

CPM.

18. Adhesive systems of 4,5,6,7 generations. Applications.
19. Classification of cavities. Rules, principles, stages of preparation.
20. Black class 1,2. Localization. Features of preparation and filling.
21. Black class 3,4. Localization. Features of preparation and filling.
22. Black class 5,6. Localization. Peculiarities of preparation and filling.
23. Gingival retraction. Objective. Methods of retraction. Matrix systems. Types, fixation methods.
24. Mistakes occurring during preparation of cavities, filling. Mistakes occurring after treatment. Methods of elimination. Prophylaxis.
25. ISO standard for endodontic instruments: colour and geometric markings, types of cross-section. Structure of endodontic instrument.
26. Purpose of endodontic instrument use, manufacturing materials, manufacturing methods. Principles and rules of endodontic instrumentation.
27. K-style tools (K-reamer, K-file). H-style tools (H-file, A-file, S-file). Pulpo-extractor: field of application, structure, working methods.
28. NiTi tools: properties, principles of preparation. Manual endodontic instruments for QC passage and enlargement. Structure, working methods.
29. NiTi tools: properties, principles of preparation. Endodontic rotary instruments (Pro-file, ProTaper, FlexMaster) for QC passage and enlargement. Structure, working methodology.
30. Manual endodontic tools for QC filling (plugger, spreader). Structure, application, working technique. 31.
31. Endodontic tools of machine application for QC filling (canal filler, gutta-condensor). Structure, application, working procedure. 32.
32. Endodontic tools for enlargement of the AC orifice (OrifiseOpener, Gates-Glidden, Largo). Structure, method of operation, rotation frequency.
33. Techniques of Mechanical treatment of the AC (Step-back, CrownDown, balanced force). 34.
34. Methods of determining length of QC. Methods of carrying out.
35. Biological method of pulpitis treatment. Methods of vital amputation. Indications, stages.
36. Method of vital and devital extirpation. Indications, advantages, disadvantages, stages.
37. Impregnation methods of pulpitis treatment (silvering according to Platonov and Pecker, resorcin-formalin method). Indications, mechanism of action, properties, differences, conduct of methods (stages).
38. Failure of endodontic instruments in CC: causes, prevention, tactics of elimination.
39. Root canal unsealing: causes, methods, means of unsealing. Calcium hydroxide and its application in dentistry. 40.
40. Treatment of acute apical periodontitis. Treatment of chronic forms of apical periodontitis. Stages.
41. Gutta-percha: types, components, advantages and disadvantages. Rationale for the choice of gutta-percha filling method.
42. Technique of working with cold gutta-percha: methods of QC filling (stages, methodology).
43. 43. Technique with heated gutta-percha: Techniques for QC filling (stages, methodology).
44. Plugs and posts. Indications for use. Preparation of the bed for fixation of the pin. Additional accessories. Fixation.
45. Intracanal glass fibre pins: types, indications, contraindications for use,

fixation methods. 46.

46. Intracanal silver and anchor pins: types, indications, contraindications for use, methods of fixation. 47.

47. Mistakes in endodontic treatment, prevention, methods of elimination. 48.

48. Complications during and after endodontic treatment, prevention, methods of elimination. 49.

49. Drugs used in endodontics. Classification. Representatives. Properties. Root canal irrigation: means, methods, technique.

50. Bleeding from the root canal: causes, means and methods to stop bleeding. Methods and means to dry the root canal, technique.

51. Means for chemical enlargement of the root canal and removal of the lubricated layer from the walls of the root canal, properties, mechanism of action, technique.

52. Means of necrosis of the pulp. Mechanism of action, rules of devitalizing pastes.

53. Preparations for temporary filling of root canals and application of antiseptic dressings, properties, requirements for them, indications and contraindications for use, methods of application. 54.

54. Plastic hardening materials for root canal filling: indications, groups, properties, requirements for them, methods of filling

55. Materials for root canal filling: zinc oxide-eugenol pastes and glass ionomer cements. Representatives. Properties.

56. Dental instrumentation: probe, mirror, forceps, smoothing tool, spatula, corkscrew, excavator. Types, functions, working methods.

57. Examination methods: probing, percussion, palpation. Types, technique, purpose. EDS, methodology, purpose. Normal pulp reaction, indicators.

58. Dental plaque, classification. Methods of removal of dental plaque, instruments, apparatus, technique.

59. Shape of dental arches in the upper and lower jaws. Concept of dental, alveolar and basal arches.

60. Anatomical and functional structure of the periodontium. Functions of the periodontium. The endurance of the periodontium to chewing pressure.

61. Drawing of the medial surface of tooth 1.6.

62. Draw the palatal surface of tooth 1.6

63. Draw the structure of the TMJ.

64. Draw the palatal surface of the tooth 1.4.

65. Draw the lip surface of the tooth 1.1.

66. Draw the vestibular surface of the tooth 2.6.

67. Draw the lingual surface of the tooth 3.6.

68. Draw the lip surface of the tooth 2.2.

69. Draw the lip surface of the tooth 3.1.

70. Draw the lingual surface of the tooth 4.6.

71. Draw the cheek surface of the tooth 4.7.

72. Draw the vestibular surface of the tooth 4.2.

73. Draw the cheek surface of the tooth 2.7.

74. Draw the palatal surface of the tooth 1.6.

75. Draw the medial surface of tooth 1.4.

76. Draw the distal surface of tooth 1.6.

77. Draw the lip surface of the tooth 4.3.

78. Draw the medial surface of the tooth 2.4.

79. Draw the cheek surface of the tooth 4.3.

80. Draw the palatal surface of the tooth 2.6.

81. Draw the medial surface of the tooth 2.3.

82. Draw the lip surface of the tooth 1.1.
83. Draw the cheek surface of the tooth 3.7.
84. Draw the lingual surface of the tooth 3.6.
85. Draw the distal surface of the tooth 2.4.
86. Draw the palatal surface of the tooth 2.6.
87. Draw the cheek surface of the tooth 3.7.
88. Draw the lingual surface of the tooth 3.2.
89. Draw the distal surface of the tooth 1.3.
90. Draw the palatal surface of the tooth 1.6.
91. Draw the medial and palatal surfaces of the tooth 1.4.
92. Draw the chewing and palatal surfaces of the tooth 1.6.
93. Draw the lip and medial surfaces of the tooth 3.2.
94. Draw the palatal surface of the tooth 2.6.
95. Draw the oral and medial surfaces of the tooth 2.6.
96. Draw the occlusal and palatal surfaces of the tooth 1.4.
97. Draw the medial and palatal surfaces of the tooth 3.2.
98. Draw the cheek and palatal surfaces of the tooth 1.8.
99. Draw the masticatory and distal tooth surfaces 4.4.
100. Draw the cheek and occlusal surfaces of the tooth 1.7.
101. Draw the lingual and distal surfaces of the tooth 3.6.
102. Draw the palatal surface of teeth 1.6 and 1.7.
103. Draw the medial, lingual and chewing surfaces of tooth 3.6.
104. Draw the lip and medial surfaces of the tooth 2.2.
105. Draw the vestibular and palatal tooth surfaces 2.4.
106. Draw the occlusal and palatal tooth surfaces 1.6.
107. Draw the occlusal and palatal tooth surfaces 2.6.
108. Draw the lip and medial surfaces of the tooth 3.2.
109. Draw and mark the structure of the TMJ.
110. Draw the cheek and medial surfaces of tooth 4.6.
111. Draw the vestibular and distal surfaces of the tooth 2.3.
112. Draw the lip and distal surfaces of the tooth 3.2.
113. Draw the structure of the upper and lower jaw.
114. Draw the occlusal and cheek surfaces of the tooth 1.6.
115. Draw the occlusal and palatal surfaces of the tooth 2.6.
116. Draw the occlusal and distal tooth surfaces 2.6.
117. Draw the distal and palatal surfaces of the tooth 1.6.
118. Draw the chewing and medial surfaces of the tooth 1.5.
119. Draw the palatal and distal tooth surfaces 1.5.
120. Draw the medial and mandibular surfaces of the tooth 2.2.
121. Method of infiltration anaesthesia. Anaesthetic zone.
122. Mandibular anesthesia technique (apodactyl technique). Zone of anesthesia.
123. Mandibular anesthesia technique (palpatory method). Zone of anesthesia.
124. Technique of mental anesthesia (extraoral and intraoral methods). Zone of anesthesia.
125. Technique of cheek anesthesia. Zone of anesthesia.
126. Anaesthesia and tooth extraction 3.2: method and technique of anaesthesia, tool kit and extraction technique.
127. Anesthesia and tooth extraction 4.8: method and technique of anesthesia, set of instruments and extraction technique.
128. Anaesthesia and tooth extraction 2.8: method and technique of anaesthesia, toolkit and extraction technique.
129. Anaesthetize and extract tooth 4.5: method and technique of anaesthesia. set

of instruments and extraction technique.

130. Anaesthesia and tooth extraction 4.6: method and technique of anaesthesia, toolkit and extraction technique.

131. Anesthesia and tooth extraction 2.1: method and technique of anesthesia, set of tools and extraction technique.

132. Anesthesia and tooth extraction 1.4: method and technique of anesthesia, toolkit and extraction technique.

133. Anaesthesia and tooth extraction 1.7: method and technique of anaesthesia, toolkit and extraction technique.

134. Technique for removal of 3 molars of upper and lower jaw. Instrumentation.

135. Technique of removal of mandibular molars, instrumentation.

136. Technique of removal of incisors and canines of the lower jaw, instrumentation.

137. Method of removal of roots of teeth of upper and lower jaws, instruments.

138. Method of removal of maxillary molars, instrumentation.

139. Procedure for removal of mandibular premolars.

140. Technique of removal of maxillary premolars.

141. Technique of removal of incisors and canines of the upper jaw, instruments.

142. Preparation of patients with severe cardiovascular pathology (CHD, hypertension, etc.) to the operation of tooth extraction, features of surgery and surgical care.

143. Preparing patients with diabetes for tooth extraction surgery, especially surgery and postoperative care.

144. Methods of anaesthesia in the incisor area (intraoral and intranasal methods).

145. Peculiarities of anesthesia in elderly patients who suffered from MI, CHD.

146. Preparation of the patient with blood diseases (haemophilia, haemorrhagic diathesis, systemic diseases) for a tooth extraction operation, peculiarities of the operation and surgical care.

147. Contraindications for tooth extraction.

148. The causes of fracture of the crown and root of the tooth during extraction. Ways of prevention. Treatment.

149. Lunocular pain. Causes, prevention, treatment and management.

150. Secondary lunate bleeding: causes, prevention, clinic and treatment.

151. Bleeding after extraction of the tooth, its causes, methods of stopping, prevention.

152. Collapse. Clinical course. Emergency treatment of the patient in the outpatient clinic.

153. Anaphylactic shock. Clinical course. Emergency treatment of the patient in the outpatient clinic setting.

154. Alveolitis. Causes, prevention, clinic and treatment.

155. Hematoma, diplopia, facial ischemia during anesthesia in the maxillofacial area: etiology, treatment.

156. Inferior lunate nerve neuritis. Causes, prevention, clinic and treatment.

157. Syncope. Clinical course. Emergency care for the patient in the outpatient clinic.

158. Local complications arising during tooth extraction. Ways of prevention.

159. Local complications during and after anesthetic injections, prevention, treatment. The tactics of the doctor in the event of the introduction of a non-injection solution instead of anaesthetic.

160. General complications arising during tooth extraction. Diagnosis, treatment, prevention.

161. General complications during local anesthesia. Allergic manifestations in the outpatient practice of the dentist. Clinic, diagnosis, treatment.

162. Infiltration anesthesia in surgical intervention in the Dentistry: indications, zone of anesthesia, techniques, possible local complications, prevention and treatment.

163. Anesthesia in the area of the palatine orifice: indications, anesthetic zone, techniques, possible local complications, their prevention and treatment.

164. Mental anesthesia: indications, zone of anesthesia, techniques, possible local complications, their prevention and treatment .

165. Tuberal anesthesia: indications, zone of anesthesia, techniques, possible local complications, their prevention and treatment.

166. Thoracic anesthesia: indications, zone of anesthesia, techniques, possible local complications, their prevention and treatment.

167. Mandibular anesthesia (intraoral method): indications, zone of anesthesia, techniques, possible local complications, their prevention and treatment.

168. Mandibular anesthesia (extraoral method): indications, zone of anesthesia, techniques, possible local complications, their prevention and treatment.

169. Infraorbital anesthesia: indications, zone of anesthesia, techniques, possible local complications, their prevention and treatment.

170. Cheek nerve anesthesia: indications, zone of anesthesia, techniques, possible local complications, their prevention and treatment.

171. Nasolabial nerve anesthesia: indications, zone of anesthesia, techniques, possible local complications, their prevention and treatment.

172. Analgesia according to methods of Bershe, Bershe-Dubov: indications, zone of analgesia, techniques, possible local complications, their prevention and treatment.

173. General anesthesia. Indications and characteristics of general anesthesia in operations on the face and mouth.

174. Types of general and local anesthesia in the DER.

175. Anesthetic solutions, their characteristics and concentrations. Classification.

176. Lingual nerve anesthesia: indications, zone of anesthesia, techniques, possible local complications, prevention and treatment.

177. Stages of the operation of tooth extraction. Signs of the design of forceps. Methods of keeping forceps.

178. Indications and contraindications for scheduled removal of permanent teeth.

179. Select instruments for removal of tooth 3.8 with preserved crown. Carry out the anaesthesia required for the removal of the specified tooth. Stages of tooth extraction and local complications.

180. Select the instruments to remove tooth 1.6 with preserved crown. Carry out the anaesthesia required for the extraction operation of the indicated tooth. Stages of tooth extraction

### **6.3. Suggested themes of term papers (projects)**

There are no courseworks.

### **6.4. Suggested themes of term projects**

There are no coursework projects.

### **6.5. Suggested topics of calculation and graphic works**

Write a case history on "Examination of a dental patient".

Draw 52 teeth (20 baby teeth and 32 permanent teeth) in sketchbooks, model 14 permanent teeth.

## 7. Educational, methodological, informational and software support of the discipline (module)

The electronic catalog and electronic information resources provided by the scientific library of the FSBEI of HE "I. N. Ulianov Chuvash State University" are available at the link <http://library.chuvsu.ru/>

### 7.1. Regulatory documents, standards and rules

### 7.2. Recommended basic educational and methodological literature

№ item	Name
1	Daurova F. Y., Makeeva M. K., Khabadze Z. S. Essentials of Operative Dentistry [Электронный ресурс]:. - Москва: ГЭОТАР-Медиа, 2019. - – Режим доступа: <a href="https://www.studentlibrary.ru/book/ISBN9785970451335.html">https://www.studentlibrary.ru/book/ISBN9785970451335.html</a>
2	Nikitina L. I., Grigoryan G. K., Zaika E. G., Fouani Y., Gromova A. S. Fundamentals of propaedeutic dentistry: educational and methodical manual. - Cheboksary: Publishing House of Chuvash University, 2022. - 106 с.

### 7.3. Recommended supplementary educational and methodological literature

№ item	Name
1	

### 7.4. List of resources of the "Internet" information and telecommunication network

№ item	Name	Link to the resource
1	Единое окно к образовательным ресурсам [Электронный ресурс]. – Режим доступа: <a href="http://window.edu.ru">http://window.edu.ru</a>	<a href="http://window.edu.ru">http://window.edu.ru</a>
2	Российская государственная библиотека [Электронный ресурс]. – Режим доступа: <a href="http://www.rsl.ru">http://www.rsl.ru</a>	<a href="http://www.rsl.ru">http://www.rsl.ru</a>
3	Российская национальная библиотека [Электронный ресурс]. – Режим доступа: <a href="http://www.nlr.ru">http://www.nlr.ru</a>	<a href="http://www.nlr.ru">http://www.nlr.ru</a>
4	Научная электронная библиотека «Киберленинка» [Электронный ресурс]. – Режим доступа: <a href="http://cyberleninka.ru">http://cyberleninka.ru</a>	<a href="http://cyberleninka.ru">http://cyberleninka.ru</a>

### 7.5. Software, professional databases, information and reference systems, electronic educational resources and electronic library systems

Software, professional databases, information and reference systems provided by the Informatization Department of the FSBEI of HE "I.N. Ulianov Chuvash State University" are available for download at the link <http://ui.chuvsu.ru/>. The Unified Register of Russian programs for electronic computers and databases, including freely distributed ones, is available at the link [reestr.minsvyaz.ru/reestr /](http://reestr.minsvyaz.ru/reestr/).

#### 7.5.1. Licensed and freely distributed software

Microsoft Windows operating System and/or Unix-like operating system and/or mobile operating system;

Office software packages:

Microsoft Office and/or LibreOffice  
and (or) OpenOffice and (or) analogues;

Browsers, including Yandex.Browser.

List of software:

OpenOffice 3.3.0

### **7.5.2. Lists of professional databases and (or) information reference systems and (or) electronic library systems and (or) electronic educational resources**

Electronic library system IPRbooks

Electronic library system «Lan Publishing House»

Consultant of a Student. Student Electronic Library

## **8. Material and technical support of the discipline**

Classrooms for lecture-type classes in the discipline are equipped with a teacher's automated workplace consisting of: a personal computer/laptop, multimedia equipment with a screen and (or) SMART interactive whiteboard/SMART TV.

The premises for students' independent work are equipped with computer equipment enabling to connect to the Internet and provide access to the electronic information and educational environment of the FSBEI of HE "I.N. Ulianov Chuvash State University".

№ item	Lesson type	Brief description and characteristics of the composition of installations, measuring and diagnostic equipment, computer equipment and experimental automation tools
1	Зачёт	Учебная аудитория для занятий семинарского типа, текущего контроля и промежуточной аттестации. Оборудование: учебная доска, учебная мебель, переносное мультимедийное оборудование (проектор, экран, персональный компьютер или ноутбук с необходимым программным обеспечением для тематических иллюстраций и демонстраций, соответствующих программе дисциплины), лабораторные стенды
2	Лаб	Учебная аудитория для занятий семинарского типа, текущего контроля и промежуточной аттестации. Оборудование: учебная доска, учебная мебель, переносное мультимедийное оборудование (проектор, экран, персональный компьютер или ноутбук с необходимым программным обеспечением для тематических иллюстраций и демонстраций, соответствующих программе дисциплины), лабораторные стенды

3	Лек	Учебная аудитория для занятий семинарского типа, текущего контроля и промежуточной аттестации. Оборудование: учебная доска, учебная мебель, переносное мультимедийное оборудование (проектор, экран, персональный компьютер или ноутбук с необходимым программным обеспечением для тематических иллюстраций и демонстраций, соответствующих программе дисциплины), лабораторные стенды
4	Экзамен	Учебная аудитория для занятий семинарского типа, текущего контроля и промежуточной аттестации. Оборудование: учебная доска, учебная мебель, переносное мультимедийное оборудование (проектор, экран, персональный компьютер или ноутбук с необходимым программным обеспечением для тематических иллюстраций и демонстраций, соответствующих программе дисциплины), лабораторные стенды

### **9. Means of adapting the discipline teaching to the needs of persons with physical conditions**

If necessary, persons with physical conditions can be offered one of the following options for perceiving information, taking into account their individual psychophysical characteristics:

- 1) using e-learning and distance learning technologies.
- 2) using special equipment (enginery) and software in accordance with the students' health restrictions in the Training Centers for Persons with Disabilities and Physical Conditions (hereinafter referred to as special needs) available at the university.

In the course of training, if necessary, the following conditions are provided for persons with visual, hearing and musculoskeletal disorders:

- for persons with visual impairments: educational and methodological materials in printed form in enlarged font; in the form of an electronic document; in the form of an audio file (conversion of educational materials into audio format); in printed form in Braille; individual consultations involving a tactile interpreter; individual assignments and consultations.

- for people with hearing impairments: educational and methodological materials in printed form; in the form of an electronic document; video materials with subtitles; individual consultations involving a sign language interpreter; individual assignments and consultations.

- for persons with disorders of the musculoskeletal system: educational and methodological materials in printed form; in the form of an electronic document; in the form of an audio file; individual assignments and consultations.

### **10. Guidelines for students to perform independent work**

The purpose of the student's independent work (IW) is to consolidate the theoretical knowledge gained and to acquire practical skills in using and performing research of algorithms and data structures when designing application software programs. IW includes independent study of educational issues, preparation for laboratory classes, performing calculation and graphic work, preparation for a test and an exam.

The list of questions and tasks for independent work to prepare for laboratory classes is given in the corresponding methodological instructive regulations in the description of each laboratory work.

The list of questions and tasks for independent work to carry out calculation and graphic work is given in the relevant methodological instructive regulations.

Independent work of students is an integral part of the educational process. The purpose of independent work is to prepare a modern competent specialist and to form abilities and skills for continuous self-education and professional improvement.

The implementation of this goal involves solving the following tasks:

- qualitative development of theoretical material in the discipline "Propaedeutic dentistry", deepening and expanding theoretical knowledge in order to apply them at the level of interdisciplinary connections;
- systematization and consolidation of the acquired theoretical knowledge and practical skills;
- formation of skills in the search and use of normative, legal, reference and special literature, as well as other sources of information;
- development of cognitive abilities and activity, creative initiative, independence, responsibility and organization;
- formation of independent thinking, abilities for self-development, self-education, self-improvement and self-realization;
- development of research skills;
- formation of the ability to solve practical problems (in professional activity) using acquired knowledge, abilities and skills.

Independent work is determined by the specifics of the discipline and the methodology of its teaching, the time provided by the curriculum, as well as the stage of study at which the discipline is studied. The main forms of organizing independent work of students are: classroom independent work under the guidance and supervision of a teacher (at lectures and consultations); extracurricular independent work under the guidance and supervision of a teacher (during consultations, during research work), extracurricular independent work without the direct participation of a teacher (preparation for classroom classes, Olympiads, conferences, performance of control work, work with electronic information resources, preparation for tests). Independent work of students is provided by these methodological recommendations.

Independent work of students on the course "Propaedeutic dentistry" is a necessary component of training a specialist in the field of dentistry.

Extracurricular independent work is the planned educational, educational research, scientific research work of students, carried out outside the classroom according to the assignment and with the methodical guidance of the teacher, but without his direct participation. The purpose of the students' independent work is to master the fundamental knowledge of medical deontology, general principles of diagnosis, semiotics of diseases of organs and tissues of the oral cavity, initial professional manual skills of a general practice dentist, which is the basis for mastering clinical disciplines.

Independent work of students is aimed at solving the following tasks:

- mastering the basic methods of examination of a dental patient;
- formation of the ability to work with basic dental equipment, tools, materials;
- knowledge and compliance with sanitary and hygienic requirements, safety regulations;
- mastering the basics of medical deontology, semiology, diagnosis of major dental diseases;
- mastering the basic professional manual skills of a dentist on a phantom.

## **11. Methodological instructive regulations for students studying the discipline (module)**

When starting to master / study the discipline (module), it is necessary first of all to familiarize yourself with the content of the work program of the discipline (module)

(hereinafter referred to as the RAP).

Lectures are intended to give a systematic basis of scientific knowledge.

When studying and working out theoretical material, it is necessary to:

- repeat the material outlined in the lecture lesson and supplement it with the recommended literature on this topic;

- when studying a theoretical topic independently, make a summary using the literature sources recommended in the RAP.

- when preparing for the current and intermediate control, use the materials of the FOS.

Work with educational and methodological and scientific literature is one of the important forms of work on the development / study of the discipline (module) and is necessary in preparation for an oral survey in seminar-type classes, for control works, testing, test / exam. It includes the study of lecture material – the study of recommended sources and literature on the subject of lectures. The lecture summary should contain an abstract record of the main questions of the lecture, the schemes proposed by the teacher (when they are demonstrated), the main sources and literature on the topics, conclusions on each issue. The summary should be made in a separate notebook for the discipline (module). It should be neat, easy to read, and not contain irrelevant information or drawings.

Abstracts of scientific literature in preparation for classes should also be carried out carefully, contain answers to each question posed in the topic, have a link to the source of information with mandatory indication of the author, title and year of publication of the scientific literature used. The summary can be a reference (contain only the main key positions), but at the same time it allows you to give a complete answer to the question, it can be detailed. The volume of the abstract is determined by the student himself.

In the process of working with educational and scientific literature, the student can:

- make notes as you read in the form of a simple or detailed plan (create a list of the main issues discussed in the source);

- make abstracts (quoting the most important parts of an article or monograph, a short summary of the author's main thoughts);

- prepare annotations (a brief summary of the main issues of the work);

- create abstracts (detailed abstracts that).

Work with literature should begin with an analysis of the RAP, which lists the main and additional literature, educational and methodological publications necessary for the development / study of the discipline (module) and work in seminar-type classes.

After selecting the desired source, you should find the section of interest by the table of contents or alphabetical index, as well as the section of the lecture notes or textbook of the same name. In case of difficulties in understanding the educational material, you should turn to other sources where the presentation may be more accessible. It should be noted that working with literature is not only useful as a means of deeper development / study of any discipline (module), but is also an integral part of the professional activity of a future graduate.

### **11.1. Methodological instructive regulations for preparing for seminar-type classes**

Practical training is one of the forms of educational work that is focused on consolidating the studied theoretical material, its deeper assimilation and the formation of the ability to apply theoretical knowledge for practical, applied purposes. Special attention in practical classes is paid to the development of educational or professional skills. Such skills are formed in the process of performing specific tasks – exercises, tasks, etc. under the guidance and supervision of a teacher. The main purpose of practical training is the formation of skills and the acquisition of practical experience aimed at the formation of competencies. The content of practical classes is the solution of various kinds of tasks, including professional ones (analysis of production situations, solving situational production

tasks, demonstration of mastering professional functions during experiments, etc.), performing calculations, calculations, studying the dynamics of various indicators, working with software, working with regulatory documents, instructional materials, reference books etc. To prepare for a practical lesson, the student needs to study the theoretical material on this topic, memorize the basic definitions and terms, and analyze the lecture material. To consolidate the material passed, the student also needs to do homework in accordance with the task received at the previous practical lesson. In case of difficulties in its implementation, it is recommended to seek the help of a teacher in the time allotted for consultations. The stages of preparation for the practical lesson:

- the study of the theoretical material learned in lecture and in the process of independent work;
- study and analysis of recommended literature; □ read the notes during the study recommended literature; □ homework; □ self- test on control issues of the topic; □ formulation of opinions and issues for the practical sessions that occurred during independent work. Practical classes develop students' skills of independent work to solve specific tasks.

### **11.2. Methodological instructive regulations for preparing for an examination**

The exam aims to evaluate the work of students for a certain course: the theoretical knowledge gained, their strength, the development of logical and creative thinking, the acquisition of independent work skills, the ability to analyze and synthesize the knowledge gained and put into practice the solution of practical problems.

The exam is conducted in writing on tickets approved by the head of the department. The exam ticket includes 3 questions. The wording of the questions coincides with the wording of the list of questions brought to the attention of students one month before the examination session. In the process of preparing for the exam, a pre-examination consultation was organized for all study groups. The result of the exam is expressed by the assessment "excellent", "good", "satisfactory".

In order to clarify the assessment, the examiner can ask no more than one or two additional questions that do not go beyond the requirements of the work program. An additional question means a question that is not related to the subject of the ticket issues. An additional question, as well as the main questions of the ticket, requires a detailed answer. In addition, the teacher can ask a number of clarifying and leading questions related to the subject of the main questions of the ticket. The number of clarifying and leading questions is unlimited.

### **11.3. Methodological instructive regulations for preparing for a test**

Preparation of students for passing the test includes:

- viewing the program of the training course;
- identification of sources necessary for the preparation (textbooks, additional literature, etc.) and their study;
- use of lecture notes, materials of laboratory classes;
- consulting with a teacher.

Preparation for the test begins with the first lesson in the discipline, at which students receive a general teacher's attitude and a list of basic requirements for current and final reporting. At the same time, it is important to systematically master the material from the very beginning, guided, first of all, by the list of questions for the test, to take notes of sources important for solving educational tasks. During the semester, the replenishment, systematization and adjustment of student achievements, the development of new and consolidation of already studied material take place.

### **11.4. Methodological instructive regulations for performing computational and graphical**

The purpose of the computational and graphical work is to systematize and consolidate theoretical knowledge and develop practical skills in solving problems, developing skills in data analysis and drawing conclusions based on the results obtained.

The tasks of computational and graphical work are:

- development of skills of independent work in the field of solving practical problems;
- selection and systematization of theoretical material, which is the basis for solving a practical problem, development of skills of independent work with educational and methodological literature.

In accordance with the training program, each student annually independently performs a creative task - writes a medical history. The medical history is one of the important forms of training of the student. In the process of completing the medical history, the student acquires the skills of independent work with patients, masters modern methods of diagnosis and treatment, learns to work with literature, develops creative thinking and the ability to defend his point of view in a reasoned manner. One of the main results of the student's work is the assimilation of the main achievements of modern medicine.

Evaluation criteria of computational and graphic work:

- the level of development of educational material;
- depth of study of the material;
- ability to use theoretical knowledge when performing practical tasks;
- design of calculation and graphic work in accordance with the requirements.

### **11.5. Methodological instructive regulations for performing a control work**

Evaluation criteria for control questions:

The grade "excellent" is given if the student has shown a deep and complete knowledge of the material of the discipline, assimilation of the main and additional literature recommended by the work program of the discipline.

The grades "good" are given to the student who has shown full knowledge of the basic material of the discipline, knowledge of the main literature and familiarity with the additional literature recommended by the work program.

Grades "satisfactory" are given if the student did not show knowledge of the main provisions on the topic, made some errors and managed to eliminate them with the help of a teacher who is familiar with the main literature on the subject.

The assessment is "unsatisfactory", the answer revealed significant gaps in the knowledge of the main provisions of the discipline, the inability of the student, even with the help of a teacher, to formulate correct answers to questions.

### **11.6. Methodological instructive regulations for performing a course work (project)**

There are no courseworks (coursework projects).

### List of additions and changes

The name and details (if any) of the document attached to the Working Program of the discipline (module) containing the text of updates	Department's decision		Full name of department head:
	Date	Protocol №	