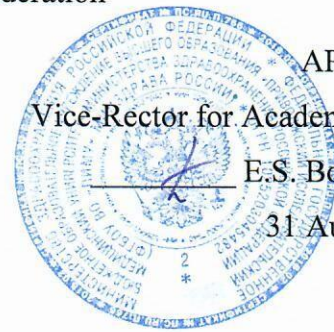


Federal State Budgetary Educational Institution of Higher Education
"Privolzhsky Research Medical University"
Ministry of Health of the Russian Federation



APPROVED

Vice-Rector for Academic Affairs

E.S. Bogomolova

31 August 2021

WORKING PROGRAM

Name of the academic discipline: **PROSTHETICS OF DEFECTS OF THE DENTITION**

Specialty: **31.05.03 - DENTISTRY**

Qualification: **DENTIST**

Department: **ORTHOPEDIC DENTISTRY AND ORTHODONTICS**

Mode of study: **FULL-TIME**

Labor intensity of the academic discipline: **108 academic hours**

Nizhny Novgorod

2021

The work program has been developed in accordance with the Federal State Educational Standard of Higher Education in the specialty 05.31.03 "DENTISTRY" approved by order of the Ministry of Education and Science and Higher Education of the Russian Federation № 984 dated 12.08.2020.

Developers of the working program:

- Saakyan M.Yu., Doctor of Medical Sciences, Associate Professor, Head of the Department of Orthopedic Dentistry and Orthodontics «PRMU»;
- Goryacheva I. P., Candidate of Medical Sciences, Associate Professor of the Department of Orthopedic Dentistry and Orthodontics «PRMU»;
- Velmakina I. V., Candidate of Medical Sciences, Associate Professor of the Department of Orthopedic Dentistry and Orthodontics «PRMU»;
- Alekseeva N.A., Candidate of Medical Sciences, Associate Professor of the Department of Orthopedic Dentistry and Orthodontics «PRMU».

The program was reviewed and approved at the meeting of the Department of Orthopedic Dentistry and Orthodontics «PRMU» (Protocol № 1 of 30.08.2021).

Head of the Department,
Doctor of Medical Sciences, Associate Professor


Saakyan M. Yu.

30 August 2021

AGREED
Deputy Head of EMA ph.d. of biology  Lovtsova L.V.

30 August 2021

1. GOALS AND OBJECTIVES OF MASTERING THE DISCIPLINE - ORTHOPEDIC DENTISTRY

Target disciplines - to master the general cultural and professional competencies: UK-1, PC-6, PC-7, the formation of the foundations of the doctor's clinical thinking, mastering the skills of examination, differential diagnosis, rationale for the diagnosis of the disease, determining the prognosis of the disease, drawing up a treatment plan for patients, mastering the basic manual skills in carrying out orthopedic treatment necessary to start the professional activity of a future specialist dentist, as well as an in-depth study by students of sections of orthopedic dentistry necessary for the formation of systemic knowledge in the field of materials science, prevention, diagnosis and orthopedic methods of treating defects in hard tissues of teeth and dentition .

Tasks.

The main task is to develop students' knowledge about orthopedic dentistry, as the leading one among dental disciplines, dealing with the problems of treatment and prevention of diseases of the oral cavity, as well as familiarization with new materials used in the clinic of orthopedic dentistry, a detailed study of the main and additional methods of examining an orthopedic patient, semiology, ergonomics in the clinic of orthopedic dentistry, to master the diagnosis, prevention and orthopedic methods of treating defects in teeth and dentition resulting from any pathology, the study of modern technologies for the manufacture of orthopedic structures, materials science of dental materials. In addition, the student must be able to conduct a complete examination of the patient, make a diagnosis, and prescribe treatment.

In the lecture course and in practical classes, much attention is paid to deontological principles, the formation of the worldview of a generalist doctor who is able to provide qualified dental care to children, pre-conscriptors, pregnant women, and people suffering from chronic diseases.

To fulfill this position, the teacher sets the following tasks:

1. By his personal example, demeanor, appearance, technique of examination and communication with the patient - to demonstrate to the student the basic provisions that must be observed in communicating with the patient, the ability to get in touch with him.

2. Demonstrate in practice a sample of a consistent methodical examination of the patient, to the maximum extent possible to show the symptoms of a particular disease.

3. To involve students actively in conversations with patients, in individual stages and moments of patient examination (palpation, percussion, probing, identification of various symptoms) and thereby facilitate their first independent steps, help overcome the "barrier" in communicating with patients.

4. Analyzing the data obtained during the collection of anamnesis and objective data, give an example of clinical thinking at the patient's chair.

5. Involve students in primary preventive measures to reduce dental diseases, as well as in conducting health education work (issuing health bulletins, brochures, writing lectures and talks on topical dental topics for patients).

6. The study of the disease of hard tissues of the tooth, pulp, periodontal, periodontal and oral mucosa is accompanied by a demonstration of patients, analysis of the anamnesis, etiology and course of the disease, the treatment of pathology is complex and local, focusing on modern aspects in the practice of treating a particular disease.

The practical orientation of the classes is realized by involving students in direct work with patients, which contributes to the fulfillment of the main task: to teach students not only to know, but also to be able to.

The tasks of mastering orthopedic dentistry in the format of knowledge, skills, possession of skills (to know - to be able to - to master).

Know:

1. Principles of dispensary dental observation of various age, sex and social groups of the population, rehabilitation of patients
2. Maintenance of standard accounting and reporting medical documentation in medical organizations of the dental profile
3. The complex relationship between dental health, nutrition, general health, disease, drug use
4. General principles and features of the diagnosis of hereditary diseases and congenital anomalies.
5. Occlusion, biomechanics of the dentition.
6. Properties of dental materials and preparations used in dental practice,
7. Dental instruments and equipment
8. Stages of development of orthopedic dentistry, the role of leading scientists in the development of the discipline. Principles of organizing the work of the orthopedic office and department, methods of disinfection and sterilization of dental equipment and instruments
9. Classification, properties, indications for the use of impression materials, rules for working with them;
10. Methods of examination of the patient in the clinic of orthopedic dentistry, filling in the medical history, rules of deontology;
11. Indications and contraindications for dental implantation, methods of prosthetic procedures on implants,
12. Principles and sequence of tooth preparation for stamped, cast, plastic, combined and ceramic crowns;
13. Technology of various types of fixed and removable prostheses;
14. Classifications: partial loss of teeth; type of atrophy of the alveolar process with complete loss of teeth; mucous membrane; periodontal diseases; pathological abrasion; deformations of the dentition; TMJ diseases;
15. Principles of formation of cavities during prosthetic procedures with inlays, methods for modeling inlays;
16. Indications for prosthetic procedures with pin structures for complete defects in hard dental tissues;
17. Features of the treatment of patients with manifestations of intolerance to dental materials used in the manufacture of fixed prostheses.
18. Types of bites
19. Biomechanics of the dentofacial system, occlusal theories with intact dentitions;

Be able to:

1. Collect a complete medical history of the patient, including data on the state of the oral cavity and teeth, conduct a survey of the patient and relatives (collect biological, medical, psychological and social information)
2. Interpret the results of examinations, make a preliminary diagnosis to the patient, outline the scope of additional studies to clarify the diagnosis
3. Formulate a clinical diagnosis
4. Maintain medical records of various types of dental outpatient and inpatient facilities
5. Promote a healthy lifestyle,
6. Carry out work to promote dental health aimed at preventing hereditary and congenital diseases
7. Evaluate radiation and ultrasound diagnostics used in dental practice
8. Make a diagnostic impression, fix the bite with occlusal rollers, cast the model
9. Assess the effectiveness and safety of the treatment
10. Apply aseptic and antiseptic methods, medical instruments, medical supplies for laboratory diagnostic and therapeutic purposes

11. Carry out odontopreparation, control the laboratory production of the master of bridges, partial and complete removable dentures, as well as correct them, perform indirect restoration of the tooth crown
12. Work with dental instruments, materials, tools and equipment.
13. Determine the degree of tooth mobility, as well as the degree of periodontal atrophy;
14. Determine the compliance and mobility of the oral mucosa;
15. Prepare cavities for inlays;
16. Prepare teeth for stamped, solid, plastic, combined, metal-ceramic and ceramic crowns;
17. To carry out application, infiltration, conduction anesthesia when preparing teeth for fixed dentures;
18. Read radiographs (sighting, panoramic, orthopantomograms);
19. Model inlays, as well as stump pin structures on the phantom and in the oral cavity;
20. Prepare plaster and get an impression with it, as well as compose and glue it;
21. Get impressions with elastic impression materials, cast models;
22. Fit and fix tabs, pin teeth;
23. Fit and fix metal, plastic and combined crowns and bridges;
24. Prepare cement for fixing fixed prostheses;
25. Fit frames of solid arc prostheses;
26. Determine the central occlusion with partial loss of teeth;
27. Determine the central ratio of the jaws with partial loss of teeth;
28. Check designs of removable dentures;
29. Apply arched, partial and complete removable lamellar dentures;
30. To fit and apply removable plates with bite pads, as well as plates with an inclined plane;
31. Carry out correction of all types of prostheses;
32. Work with fast-hardening plastics;
33. To make wax bases with occlusal rollers;
34. Plaster the jaw models in the articulator;
35. To carry out parallelometry when planning the design of removable dentures;
36. Perform repair and reconstruction of removable dentures.

Master:

1. Methods of maintaining medical accounting and reporting documentation in medical organizations
2. Assessments of the state of dental health of the population of various age and sex groups
3. Methods of general clinical examination of children and adults
4. Clinical methods of examination of the maxillofacial region
5. Interpretation of the results of laboratory, instrumental diagnostic methods in patients of different ages
6. An algorithm for making a preliminary diagnosis to patients and, if necessary, with their subsequent referral for additional examinations and to specialist doctors
7. Algorithm for making a detailed clinical diagnosis for patients
8. The method of reading various types of radiographs
9. Definition of dental indices
10. Methods for the diagnosis and treatment of defects in hard tissues of teeth with orthopedic structures
11. Methods of diagnostics and treatment of partial loss of teeth with removable and non-removable orthopedic structures
12. Methods of differential diagnosis of the main clinical syndromes and diseases of the maxillofacial system;
13. Methods of complex treatment of patients based on a rational and economical approach on an outpatient basis, taking into account age, severity of the disease, the presence of concomitant pathology;
14. Primary and secondary prevention, rehabilitation of patients;

2. PLACE OF THE THEME IN THE STRUCTURE OF OOP HPE

2.1 The discipline refers to the basic (variable) part Block 1 of the PEP VO. Orthopedic dentistry is a core discipline of paramount importance. The main task of the Department of Orthopedic Dentistry is the theoretical and practical training of a doctor who is able to solve the issues of prevention, diagnosis and treatment of dental diseases. The general preventive orientation of an orthopedic dentist will be most fully disclosed to the student during the general medical examination of the population, which allows you to get acquainted with all dental diseases, their local and general treatment, preventive manipulations, as well as recommendations and advice that will certainly accompany the medical and preventive activities of the doctor. Based on the knowledge gained by the student in general clinical, general biological, dental departments and the department of childhood diseases, to teach students the features of prevention, clinic, diagnosis and treatment of dental diseases. Prepare a doctor who is able to work in a medical institution after completing an internship.

2.2. To study the discipline, knowledge, skills and abilities are required that are formed by previous disciplines (practitioners): human anatomy, histology with embryology, pathological anatomy and physiology, normal physiology, medical physics and computer science, pharmacology, organic and inorganic chemistry, microbiology, propaedeutic dentistry,

2.3. And the study of the discipline is necessary for the knowledge, skills and abilities formed by the subsequent disciplines/practices: therapeutic dentistry, surgical dentistry, orthodontics.

3. Requirements for the results of mastering the discipline.

The study of the discipline is aimed at the formation of students' universal (UC), professional (PC) competencies:

p / no.	Competency code	The content of the competence (or part of it)	Code and name of the indicator of achievement of competence	As a result of studying the discipline, students should:		
				Know	Be able to	Master
1.	UK-1	Able to carry out a critical analysis of problem situations based on a systematic approach, develop an action strategy	<p>IUK 1.1. Knows: methods of critical analysis and evaluation of modern scientific achievements; basic principles of critical analysis</p> <p>IUK 1.2. Able to: gain new knowledge based on analysis, synthesis, etc.; collect data on complex scientific problems related to the professional field; search for information and solutions based on action, experiment and experience</p> <p>IUK 1.3. Has practical experience: researching the problem of professional activity using analysis, synthesis and other methods of intellectual activity; developing an action strategy to solve professional problems</p>	Methods of analysis and evaluation of modern scientific achievements of dentistry; basic principles of critical analysis	Obtain new knowledge in dentistry based on analysis, synthesis, etc.; collect data on complex scientific problems related to the professional field; to search for new information and solutions based on actions, experimentation and experience carried out in dentistry	Has practical experience: researching the problem of professional activity in dentistry using analysis, synthesis and other methods of intellectual activity; development of an action strategy for solving professional problems in dentistry

2.	PC-6	<p>PC-6 readiness to collect and analyze complaints and other information from the patient (relatives/legal representatives), his medical history, interpretation of examination results, laboratory, instrumental, pathological and other studies, including diagnostic studies using modern technical means and digital technologies, in order to recognize the state or establish the fact of the presence or absence of a dental disease, symptoms, syndromes of dental diseases, the establishment of nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, and other regulatory documents of the Ministry of Health of the Russian Federation (Procedure for the provision of medical care, Standard medical care, Clinical recommendations on the provision of medical care, etc.)</p>	<p>IPC 6.1 Knows: The methodology for collecting complaints and anamnesis from patients (their legal representatives). Methods of physical examination of patients (examination, palpation, percussion, auscultation). The procedure for providing medical care to the adult population with dental diseases The procedure for providing medical care to children with dental diseases Clinical guidelines on the provision of medical care to patients with dental diseases Standards of care IPK 6.2. Able to: interpret the results of examination, laboratory, instrumental, pathoanatomical and other studies, including diagnostic studies using modern technical means and digital technologies, in order to recognize the state or establish the fact of the presence or absence of a dental disease, symptoms, syndromes of dental diseases, the establishment of nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, and other regulatory documents of the Ministry of Health of the Russian Federation (Procedure for the provision of medical care, Standard medical care, Clinical recommendations on the provision of medical care, etc.) Develop a plan for the treatment of children and adults with dental diseases in accordance with the procedures for the provision of medical care, clinical guidelines, taking into account the standards of medical care.</p> <p>IPC 6.3 Has practical experience: interpretation of the results of examination, laboratory, instrumental, pathoanatomical and other studies, including diagnostic studies using modern technical means and digital technologies, in order to recognize the state or establish the fact of the presence or absence of a dental disease, symptoms, syndromes of dental diseases, the establishment of nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, and other regulatory documents of the Ministry of Health of the Russian Federation (Procedure for the provision of medical care, Standard medical care, Clinical recommendations on the provision of</p>	<p>Methods of diagnosis, treatment, rehabilitation and prevention among the adult population and adolescents, taking into account their age and sex groups</p>	<p>Substantiate pathogenetically justified methods (principles) of diagnosis, treatment, rehabilitation and prevention among the adult population and adolescents</p>	<p>Conduct pathophysiological analysis of clinical syndromes</p>
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			<p>medical care, etc.)</p> <p>Development of a treatment plan for children and adults with dental diseases, taking into account the diagnosis, age and clinical picture in accordance with the current procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care</p>			
3.	PC-7	<p>PC-7</p> <p>the ability to determine the tactics of managing patients with various dental diseases in accordance with the Clinical Guidelines and other regulatory documents of the Ministry of Health of the Russian Federation on an outpatient basis and in a day hospital, taking into account the age of the patient.</p>	<p>IPC 7.1 Knows:</p> <p>Methods of drug and non-drug treatment, medical indications for the use of medical devices for dental diseases</p> <p>Groups of drugs used to provide medical care in the treatment of dental diseases; the mechanism of their action, medical indications and contraindications to the appointment; compatibility, possible complications, side effects, adverse reactions, including serious and unexpected</p> <p>Principles, techniques and methods of anesthesia, selection of the type of local anesthesia in the treatment of dental diseases</p> <p>Ways to prevent or eliminate complications, side effects, adverse reactions, including serious and unforeseen, that occurred during the examination or treatment of patients with diseases of the teeth, pulp, periodontium, periodontium, oral mucosa and lips</p> <p>Materials science, technologies, equipment and medical products used in dentistry</p> <p>Anatomy of the head, maxillofacial region, features of blood supply and innervation; the structure of the teeth; histology and embryology of the oral cavity and teeth, the main violations of embryogenesis</p> <p>IPK 7.2. Able to:</p> <p>Develop a plan for the treatment of children and adults with dental diseases in accordance with the procedures for the provision of medical care, clinical guidelines, taking into account the standards of care</p> <p>Select and prescribe medicines, medical devices (including dental materials), dietary nutrition, medical and recreational regimen for the treatment of children and adults with dental diseases in accordance with the current procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care</p> <p>Determine medical indications and contraindications for local anesthesia techniques in the maxillofacial region</p>	<p>Tactics of managing patients with diseases of the dentoalveolar system.</p>	<p>Determine the tactics of managing patients with diseases of the dentoalveolar system.</p>	<p>Tactics of managing patients with diseases of the dentoalveolar system.</p>

			<p>Perform local anesthesia (application, infiltration, conduction) in children and adults with dental diseases</p> <p>Perform medical interventions, including therapeutic ones, in children and adults with dental diseases on an outpatient basis (excluding repeated endodontic treatment):</p> <ul style="list-style-type: none"> - individual training in oral and dental hygiene, selection of means and items for oral hygiene - controlled brushing of teeth - professional oral and dental hygiene - injection of drugs in the maxillofacial area - local application of remineralizing preparations in the area of the tooth - deep fluoridation of tooth enamel - sealing the fissure of the tooth with a sealant - professional teeth whitening - grinding of hard tissues of the tooth - restoration of a tooth with a filling using dental cements, chemical curing materials, photopolymers - restoration of teeth with a violation of the contact point - tooth restoration with filling material using anchor pins - application of devitalizing paste - pulpotomy (amputation of the coronal pulp) - pulp extirpation - instrumental and medical treatment of a well-passable root canal - temporary filling of the root canal with a drug - filling the root canal of the tooth with paste, gutta-percha pins - removal of supragingival and subgingival plaque in the tooth area (manual method) - ultrasonic removal of supragingival and subgingival dental deposits in the tooth area - closed curettage for periodontal diseases in the tooth area - application of a medical dressing for periodontal diseases in the area of one jaw - prescription of drug therapy for diseases of the oral cavity and teeth - appointment of dietary therapy for diseases of the oral cavity and teeth <p>Perform medical interventions, including surgical ones, in children and adults with dental diseases on an outpatient basis (excluding the extraction of impacted and dystopic teeth):</p> <ul style="list-style-type: none"> - removal of a tooth - removal of a temporary tooth - permanent tooth extraction - opening and drainage of odontogenic 			
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abscess

Carry out phased sanitation of the oral cavity (excluding sanitation of the oral cavity in children under anesthesia)

Perform medical interventions, including orthopedic, in adults with dental diseases on an outpatient basis (excluding prosthetic procedures on dental implants, technologies for automated production of orthopedic structures, complete removable lamellar and clasp dentures):

- obtaining anatomical and functional impressions
- restoration of a tooth with a crmaster
- restoration of the integrity of the dentition with fixed bridges
- prosthetic procedures with partial removable lamellar dentures
- correction of a removable orthopedic structure
- removal of a fixed orthopedic structure

Interpret the results of X-ray studies of the maxillofacial region

Conduct counseling for children and adults with diseases of the mucous membranes of the mouth and lips, determine indications for referral for a consultation with specialist doctors

Prevent or eliminate complications, side effects, adverse reactions, including unforeseen ones, resulting from diagnostic or therapeutic manipulations, the use of drugs and (or) medical devices, non-drug treatment

IPC 7.3 Has practical experience:

Selection and prescription of medicines, medical devices (including dental materials) for the treatment of dental diseases in children and adults in accordance with the current procedures for the provision of medical care, clinical guidelines, taking into account the standards of medical care

Prescribing dietary nutrition, health-improving regimen in the treatment of dental diseases in children and adults in accordance with the current procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care

Performing medical interventions in children and adults with dental diseases in accordance with the current procedures for the provision of medical care, clinical guidelines, taking into account the standards of medical care

Evaluation of the results of medical interventions in children and adults with dental diseases

Selection of the type and conduct of local anesthesia (application,

		<p>infiltration, conduction) in children and adults with dental diseases</p> <p>Evaluation of the efficacy and safety of the use of drugs, medical devices and non-drug treatment in children and adults with dental diseases</p> <p>Counseling children and adults with diseases of the mucous membranes of the mouth and lips, determining indications for referral for a consultation with specialist doctors</p> <p>Selection and prescription of medicines and medical devices, taking into account the diagnosis, age and clinical picture of a dental disease in accordance with the procedures for providing medical care, clinical recommendations, taking into account the standards of medical care</p> <p>Definitions of routes of administration, regimen and dosage of drugs</p> <p>Selection and prescription of non-drug treatment for children and adults with dental diseases in accordance with the procedures for providing medical care, clinical guidelines, taking into account the standards of medical care</p> <p>Prevention and treatment of complications, side effects, adverse reactions, including unforeseen ones, resulting from diagnostic or therapeutic procedures, the use of drugs and (or) medical devices, non-drug treatment at a dental appointment</p> <p>Providing medical care to children and adults with sudden acute diseases, conditions, exacerbation of chronic diseases without obvious signs of a threat to the life of the patient in an emergency form</p> <p>The use of medicines and medical devices in the provision of medical care in an emergency form</p>		
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4. Sections of the discipline and competencies that are formed during their study:

p / no.	Competency code	Name of the discipline section	The content of the section in didactic units
1.	UK-1, PC-6,7	<i>Prosthetic procedures for dentition defects</i>	The doctrine of the fixation of removable dentures. Types of removable dentures, indications for prosthetic procedures, methods for obtaining impressions. Components of removable dentures. Clinical and laboratory stages of prosthetic procedures with arc and plate prostheses with a metal and plastic base.

5. Volume of discipline and types of educational work.

5.1. The distribution of the labor intensity of the discipline and types of educational work by terms:

Type of study work	Labor intensity		Labor intensity by terms (ACH)		
	volume in credit units (CU)	volume in academic hours (AH)	6		
classroom work, including					
Lectures (L)	0.4	fourteen	fourteen		
Laboratory workshops (LP)					
Practical exercises (PZ)					
Clinical Practice (CPP)	1.4	52	52		
Seminars (C)					
Student Independent Work (SIW)	1.2	42	42		
Student research work					
Intermediate certification					
test/exam (specify type)					
TOTAL	3	108	108		

6. The content of the discipline

6.1. Sections of the discipline, types of educational work and forms of current control:

No. p / p	semester number	Name of the discipline section	Types of educational work (in ACH)						
			L	LP	PZ	bullpen	FROM	SRS	Total
one	6	Filling in the medical history of patients with defects in the dentition, taking into account the recommendations of WHO, STAR	2			5		four	eleven
2	6	Features of the diagnosis of defects in the dentition	one			5		four	ten
3	6	Preparing the patient's oral cavity for prosthetic procedures	2			5		four	eleven
four	6	Features of planning orthopedic treatment using a photo protocol.	2			5		four	eleven
5	6	Planning of orthopedic treatment of patients with defects in the dentition with fixed prostheses using implants.	2			5		four	eleven
6	6	Planning of orthopedic treatment of patients with defects in the dentition with removable dentures using implants.	one			5		four	ten
7	6	Methods for determining the central ratio of the jaws in case of dentition defects (jigs, calibrators, deprogrammers, traditional methods)	one			5		four	ten
eight	6	Features of Prosthetic procedures for dentition defects with metal-free structures	one			5		four	ten
9	6	Application of digital technologies, 3D-scanning for prosthetic procedures with fixed prostheses	one			6		four	eleven
ten	6	The choice of fastening system for Prosthetic procedures for dentition defects with remova-	one			6		6	13

		ble dentures.							
		TOTAL	fourteen			52		42	108

L-lectures, LP-laboratory workshop, PZ-practical classes, CPC-clinical practical classes, C-seminars, SRS-independent work of students

6.2. Distribution of lectures by terms:

	Lecture Topics	Semester 6
one	Filling in the medical history of patients with defects in the dentition, taking into account the recommendations of WHO, STAR	2
2	Features of the diagnosis of defects in the dentition	one
3	Preparing the patient's oral cavity for prosthetic procedures	2
four	Features of planning orthopedic treatment using a photo protocol.	2
5	Planning of orthopedic treatment of patients with defects in the dentition with fixed prostheses using implants.	2
6	Planning of orthopedic treatment of patients with defects in the dentition with removable dentures using implants.	one
7	Methods for determining the central ratio of the jaws in case of dentition defects (jigs, calibrators, deprogrammers, traditional methods).	one
eight	Features of Prosthetic procedures for dentition defects with metal-free structures.	one
9	The use of digital technologies, 3D scanning in prosthetic procedures with fixed prostheses.	one
ten	The choice of fastening system for Prosthetic procedures for dentition defects with removable dentures.	one
	Total:	fourteen

6.3. Distribution of laboratory workshops by terms.

Laboratory workshops on orthopedic dentistry are not provided by the Federal State Educational Standard.

6.4. Distribution of clinical practice topics by terms (volume in hours):

	Name of topics of clinical practical classes	Semester 6
one	Filling in the medical history of patients with defects in the dentition, taking into account the recommendations of WHO, STAR	5
2	Features of the diagnosis of defects in the dentition	5
3	Preparing the patient's oral cavity for prosthetic procedures	5
four	Features of planning orthopedic treatment using a photo protocol	5
5	Planning of orthopedic treatment of patients with defects in the dentition with fixed prostheses using implants	5
6	Planning of orthopedic treatment of patients with defects in the dentition with removable dentures using implants	5
7	Methods for determining the central ratio of the jaws in case of dentition defects (jigs, calibrators, depro-	5

	grammers, traditional methods)	
eight	Features of Prosthetic procedures for dentition defects with metal-free structures	5
9	Application of digital technologies, 3D-scanning for prosthetic procedures with fixed prostheses	6
ten	The choice of fastening system for Prosthetic procedures for dentition defects with removable dentures	6
	Total :	52

6.5. Thematic plan of seminars:

Seminars on orthopedic dentistry are not provided by the Federal State Educational Standard

6.6. Distribution of student independent work (SIW) by terms:

	Name of the type of CPC	Semester 6
one	Work with lecture material, which includes the development of lecture notes and educational literature, the solution of situational problems. Search and review of literature and electronic sources of information on an individually given problem of the course, writing an abstract on a given problem, preparation for discussion and control work. Writing case histories, working with electronic educational resources posted on the educational portal of the Academy.	four
2	Work with lecture material, which includes the development of lecture notes and educational literature, the solution of situational problems. Search and review of literature and electronic sources of information on an individually given problem of the course, writing an abstract on a given problem, preparation for discussion and control work. Writing case histories, working with electronic educational resources posted on the educational portal of the Academy.	four
3	Work with lecture material, which includes the development of lecture notes and educational literature, the solution of situational problems. Search and review of literature and electronic sources of information on an individually given problem of the course, writing an abstract on a given problem, preparation for discussion and control work. Writing case histories, working with electronic educational resources posted on the educational portal of the Academy.	four
four	Work with lecture material, which includes the development of lecture notes and educational literature, the solution of situational problems. Search and review of literature and electronic sources of information on an individually given problem of the course, writing an abstract on a given problem, preparation for discussion and control work. Writing case histories, working with electronic educational resources posted on the educational portal of the Academy.	four
5	Work with lecture material, which includes the development of lecture notes and educational literature, the solution of situational problems. Search and review of literature and electronic sources of information on an individually given problem of the course, writing an abstract on a given problem, preparation for discussion and control work. Writing case histories, working with electronic educational resources posted on the educational portal of the Academy.	four
6	Work with lecture material, which includes the development of lecture notes and educational literature, the solution of situational problems. Search and review of literature and electronic sources of information on an individually given problem of the course, writing an abstract on a given problem, preparation for discussion and control work. Writing case histories, working with electronic educational resources posted on the educational portal of the Academy.	four
7	Work with lecture material, which includes the development of lecture notes and educational literature, the solution of situational problems. Search and review of literature and electronic sources of information on an individually given problem of the course, writing an abstract on a given problem, preparation for discussion and control work. Writing case histories, working with electronic educational resources posted on the educational portal of the Academy.	four
eight	Work with lecture material, which includes the development of lecture notes and educational literature, the solution of situational problems. Search and review of literature and electronic sources of information on an individually given problem of the course, writing an abstract on a given problem, preparation for discussion and control work. Writing case histories, working with electronic educational resources posted on the educational portal of the Academy.	four
9	Work with lecture material, which includes the development of lecture notes and educational literature, the solution of situational problems. Search and review of literature and electronic sources of information on an individually given problem of the course, writing an abstract on a given problem, preparation for discussion and control work. Writing case histories, working with electronic educational resources posted on the educational portal of the Academy.	four
ten	Work with lecture material, which includes the development of lecture notes and educational literature, the solution of situational problems. Search and review of literature and electronic sources of information on an individually given problem of the course, writing an abstract on a given problem, preparation for discussion	four

	and control work. Writing case histories, working with electronic educational resources posted on the educational portal of the Academy.	
	TOTAL:	42

6.7. Research work of a student: GEF is not provided.

7. Evaluation tools for monitoring progress and the results of mastering the discipline of choice.

No. p / p	semester number	Forms of control	Name of the discipline section	Evaluation tools		
				Kinds	Number of questions in the task	Number of independent options
one	6	Control of the development of the topic, control of independent work of students	"Prosthetic procedures for defects of the dentition"	Test tasks	fifty	Unlimited (during computer testing)
2.	6	Control of the development of the topic, control of independent work of students	"Prosthetic procedures for defects of the dentition"	Situational tasks	one	ten

8. Educational, methodological and information support of the discipline (printed, electronic publications, Internet and other network resources).

8.1. List of basic literature:

No. p / p	Name	The authors)	Year, place of publication	Number of copies	
				in library	at the department
one	Fixed Dentures: Theory, Clinical and Laboratory Techniques, 5th Edition	Zhulev E. N.	2010, Moscow, Medical Information Agency.	24 + electronic resource	one
2	Removable partial dentures (theory, clinic and laboratory equipment): A guide for physicians. 2nd edition.	Zhulev E.N.	2011 Moscow, Medical Information Agency.	73 + electronic resource	one
3	Orthopedic dentistry. Phantom course.	Zhulev E.N., Kuryakina N.V., Mitin N.V.	Moscow, Medical Information Agency, 2011. - 720 p.	100	one
four	Orthopedic dentistry	Zhulev E.N.	M. : Medical Information Agency, 2012 - 824 p.	148	one
5	Oral and maxillofacial orthopedic dentistry	Zhulev E.N., Arutyunov S.D., Lebedenko I.Yu.	M. : Medical Information Agency, 2008 - 156 p.	31 + electronic resource.	one

8.2. List of additional literature:

No. p / p	Name	The authors)	Year, place of publication	Number of copies	
				in library	at the department
1.	Preliminary treatment of patients before dental prosthetic procedures. Tutorial.	Trezubov V.N.	2009, Moscow, publishing house MIA	one	one

2.	Orthopedic treatment of periodontal diseases. Key issues in dentistry.	Kopeikin V. N.	M., Triada-H. – 1998	3	one
3.	Orthopedic dentistry (test tasks).	Zhulev E.N. Shcherbakov A.S.	2004 N.NovgorodIzd-vo- NizhGMA	56	one
4.	Dental ceramics. Actual aspects of clinical application.	K. Hemmerle.	2011M.: Publishing house "Azbuka stomatologa"		one
5.	Accuracy and Aesthetics. Clinical and dental stages of dental prosthetic procedures	Massironi D., Pascetta R., Romeo D.	2008M.: Publishing house "Azbuka stomatologa"		one
6.	Fundamentals of tooth preparation for the manufacture of cast metal, metal-ceramic and ceramic restorations.	G. Schillinburg, R. Jacobi, S. Brackett.	2011M.: Publishing house "Azbuka stomatologa"		one
7.	"Dentistry", "New in Dentistry", "Quintessence", "Dentart", "STM", "Panorama of Orthopedic Dentistry", "Clinical Dentistry", "Dent-art",	Periodical literature - journals on dentistry.	Various publishing houses of the cities: Moscow, St. Petersburg and N. Novgorod.	One copy for each release period.	0
8.	Clinic, diagnostics and orthopedic treatment of periodontal diseases.	Zhulev E. N.	2003, Nizhny Novgorod, publishing house NizhGMA	53	one
9.	Metal-ceramic prostheses. Tutorial.	Zhulev E. N.	2004, Nizhny Novgorod, publishing house of NizhGMA	57	one

8.3. List of guidelines for classroom and independent work of students:

No. p / p	Name according to bibliographic requirements	Number of copies	
		At the department	In library
one	Zhulev E.N., A.L. Manakov "Designing a removable prosthesis with a metal base" N. Novgorod, NSMA 1998, - 36l.	5	53
2	Sahakyan M.Yu. "Orthopedic treatment of generalized periodontal diseases complicated by partial loss of teeth" N. Novgorod: NGMA Publishing House, 2001, 23 pages.	5	23
3	Sahakyan M.Yu. "Special preparation of the oral cavity for prosthetic procedures in the orthopedic treatment of periodontal diseases" N. Novgorod: NGMA Publishing House, 2001, 29 pages.	four	5
four	Zhulev E.N., Arutyunov S.D., Lebedenko I.Yu. "Preparation of teeth for inlays" N. Novgorod: NGMA Publishing House 2006, 96 pages.	5	55
5	Zhulev E.N. "Materials Science in Orthopedic Dentistry" N. Novgorod: NGMA Publishing House, 1997, 136 pages.	3	98
6	Zhulev E.N. "Method of grinding teeth in the treatment of functional overload of the periodontium" N. Novgorod: Publishing house of NGMA, 1990, 10 pages.	3	one
7	Zhulev E.N. "Methodological recommendations for a student for compiling a medical history" N. Novgorod: Publishing house of NGMA, 1990, 8 p.	four	2
eight	Zhulev E.N., Ershov P.E., Bragina O.M. "Assistant to the orthopedic dentist" (educational manual): N. Novgorod: NGMA Publishing House, 2016. - 52 pages.	100	twenty

9	Zhulev E.N., Ershov P.E., Kochubeynik A.V. "Examination of a patient in the clinic of orthopedic dentistry" (manual): N. Novgorod: Publishing house of NSMA, 2015. - 60 pages.	100	twenty
ten	Zhulev E.N., Ershov P.E. "Organization of the work of the department of orthopedic dentistry and dental laboratory" (educational manual). Nizhny Novgorod: NGMA Publishing House, 2016. - 64 pages.	100	twenty

8.4. Electronic educational resources used in the process of teaching the discipline:

8.4.1. Internal Electronic Library System of the University (VEBS)*

<i>Name of the electronic resource</i>	<i>Brief description (content)</i>	<i>Access conditions</i>	<i>Number of users</i>
Internal electronic library system (VEBS)	Proceedings of the teaching staff of the Academy: textbooks and teaching aids, monographs, collections of scientific papers, scientific articles, dissertations, abstracts of dissertations, patents.	from any computer on the Internet, using an individual login and password [Electronic resource] - Access mode: http://95.79.46.206/login.php	Not limited

8.4.2. Electronic educational resources purchased by the university

<i>Name of the electronic resource</i>	<i>Brief description (content)</i>	<i>Access conditions</i>	<i>Number of users</i>
Electronic database "Student Advisor"	Educational literature + additional materials (audio, video, interactive materials, test tasks) for higher medical and pharmaceutical education. Editions are structured by specialties and disciplines in accordance with the current Federal State Educational Standards of Higher Professional Education.	from any computer on the Internet, using an individual login and password [Electronic resource] - Access mode: http://www.studmedlib.ru/	General subscription of PIMU
Electronic library system "Bukap"	Educational and scientific medical literature of Russian publishing houses, incl. translations of foreign publications.	from any computer located on the Internet by login and password, from the computers of the academy. Subscribed editions are available for reading. [Electronic resource] - Access mode: http://www.books-up.ru/	General subscription of PIMU
"Bibliopoisik"	Integrated search service "single window" for electronic catalogs, ELS and full-text databases. The results of a single search in the demo version include documents from domestic and foreign electronic libraries and databases available to the university as part of a subscription, as well as from open access databases.	For PIMU, access to the demo version of the Bibliopoisik search engine is open: http://bibliosearch.ru/pimu .	General subscription of PIMU
Domestic electronic periodicals	Periodicals on medical topics and higher education	- from the computers of the academy on the platform of the electronic library eLIBRARY.RU -magazines publishing house "Mediasphere" - from the computers of the library or provided library at the request of the user [Electronic resource] - Access mode: https://elibrary.ru/	
International scientometric database "Web of Science Core Collection"	Web of Science covers materials on natural, technical, social, humanities; takes into account the mutual citation of publications developed and provided by Thomson Reuters; has built-in search, analysis and management of	Free access from PIMU computers [Electronic resource] - Access to the resource at: http://apps.webofknowledge.com	Free access from PIMU computers

	bibliographic information.		
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8.4.3 Open access resources

<i>Name of the electronic resource</i>	<i>Brief description (content)</i>	<i>Access conditions</i>
Federal Electronic Medical Library (FEMB)	Includes electronic analogues of printed publications and original electronic publications that have no analogues recorded on other media (dissertations, abstracts, books, magazines, etc.). [Electronic resource] - Access mode: http://neb.rf/	from any computer on the Internet
Scientific electronic library eLIBRARY.RU	The largest Russian information portal in the field of science, technology, medicine and education, containing abstracts and full texts of scientific articles and publications. [Electronic resource] - Access mode: https://elibrary.ru/	from any computer on the Internet.
Scientific electronic library of open access CyberLeninka	Full texts of scientific articles with annotations published in scientific journals in Russia and neighboring countries. [Electronic resource] - Access mode: https://cyberleninka.ru/	from any computer on the Internet
Russian State Library (RSL)	Abstracts for which there are copyright agreements with permission for their open publication [Electronic resource] - Access mode: http://www.rsl.ru/	from any computer on the Internet
Reference and legal system "Consultant Plus"	Federal and regional legislation, judicial practice, financial advice, legislative comments, etc. [Electronic resource] - Access mode: http://www.consultant.ru/	from any computer on the Internet
Official website of the Ministry of Health of the Russian Federation	National Clinical Guidelines [Electronic resource] - Access mode: cr.rosminzdrav.ru - Clinical guidelines	from any computer on the Internet
Official website of the Russian Respiratory Society	Modern materials and clinical guidelines for the diagnosis and treatment of respiratory diseases [Electronic resource] - Access mode: www.spulmo.ru - Russian Respiratory Society	from any computer on the Internet
Official website of the Russian Scientific Society of Therapists	Modern materials and clinical guidelines for the diagnosis and treatment of diseases of internal organs [Electronic resource] - Access mode: www.rnmot.ru - Russian Scientific Society of Therapists	from any computer on the Internet

1. Programs for reading X-ray images - Ez3D 2010, O-line, 3Dlab
2. Program for creating and viewing presentations - Power Point 97-2003
3. Program for viewing educational films - Windows media, Quick Time
4. A program for viewing educational material in PDF format - Acrobat Reader
5. Program for word processing, spreadsheets, presentations, graphics, databases - OpenOffice.org 3
6. Electronic media burning software - Nero Ahead Burning Room
7. Electronic catalog of dissertations - "Dissercat"
8. Search engines: Yandex, Google, Rambler, Yahoo.
9. information received when communicating on dental forums, websites of dental journals, for example: <http://100mat.ru>, <http://instom.ru>, <http://dental-revue.com>, <http://forum.stom.ru>.

9. Logistics support of discipline.

9.1. List of premises* required for conducting classroom studies in the discipline of your choice.

1. Lecture hall equipped with multimedia equipment and a microphone.
2. Clinical practice rooms

3. Multidisciplinary accreditation and simulation center
4. Equipment necessary for conducting classroom lessons in the discipline.

Lectures:

- a set of electronic multimedia presentations,
- an audience equipped with presentation equipment: projector, screen, laptop.

Workshops:

Classes at the department are held in two shifts, about 25-30 students study at the same time. The classrooms are equipped with modern equipment, including dental units: Azimut-100 - 6 pcs., Azimut-200 - 3 pcs., Gallant - 2 pcs., Dabi Atlante - 3 pcs. and Performer - 1 pc., as well as the whole complex of equipment, tools and materials necessary for conducting the educational process, ensuring the reception of patients and the manufacture of prostheses and orthodontic appliances.

The department has created a large fund of museum exhibits of various types of prostheses and orthopedic devices in all sections of orthopedic dentistry and orthodontics (257 items).

The department has the opportunity to use computing and office equipment for scientific and pedagogical purposes: 5 personal computers, 3 inkjet printers, 2 laser printers, a copier, a scanner, 6 TVs, 4 video recorders; the educational and laboratory equipment necessary to ensure the educational process is regularly updated: a slide projector, a collection of slides; in the use of the department there is a video camera, a digital camera. Classrooms are equipped with posters, stands and showcases that correspond to the topics of the classes, as well as boards for writing with chalk. The department has stands that provide information for students of all courses, separate stands are devoted to the history of the development of the department, scientific achievements in the field of orthopedic dentistry, patents and inventions of employees, there is an information stand for patients.

In 2002, cable television was created at the department to demonstrate various clinical techniques to students using a video camera. Essential support in providing teaching and methodological materials are the resources of the Internet.

In order to ensure the high quality of the educational process and develop clinical and practical skills in orthopedic treatment of various nosological forms of diseases, students master practical skills on 12 phantom devices.

The department has a modern material base of research, which is replenished with modern equipment:

- 1) apparatus for studying microcirculation LAKK-01 (2003), which provides research at a high scientific level;
- 2) diagnostic Neuromiostom complex for electromyography (2009),
- 3) parallometer (2010).

Educational technologies in an interactive form used in the process of teaching the discipline:

1. problem lecture,
2. Practical lesson in the form of a workshop,
3. Seminar discussion,
4. visualization lecture,
5. Practical lesson in the form of a presentation.

Only 51% of interactive classes from the volume of classroom work.

9.3. A set of licensed and freely distributed software, including domestic production

Item no.	Software	number of licenses	Type of software	Manufacturer	Number in the unified register of Russian software	Contract No. and date
1	Wtware	100	Thin Client Operating System	Kovalev Andrey Alexandrovich	1960	2471/05-18 from 28.05.2018

2	MyOffice is Standard. A corporate user license for educational organizations, with no expiration date, with the right to receive updates for 1 year.	220	Office Application	LLC "NEW CLOUD TECHNOLOGIES"	283	without limitation, with the right to receive updates for 1 year.
3	LibreOffice		Office Application	The Document Foundation	Freely distributed software	
4	Windows 10 Education	700	Operating systems	Microsoft	Azure Dev Tools for Teaching Subscription	
5	Yandex. Browser		Browser	«Yandex»	3722	
6	Subscription to MS Office Pro for 170 PCs for FGBOU VO "PIMU" of the Ministry of Health of Russia	170	Office Application	Microsoft		23618/HN10030 LLC "Softline Trade" from 04.12.2020

10. List of changes to the working program (to be filled out by the template)

Federal State Budgetary Educational Institution of Higher Education
"Privolzhsky Research Medical University"
Ministry of Health of the Russian Federation
(FSBEI HE "PRMU" of the Ministry of Health of Russia)

Department of **ORTHOPEDIC DENTISTRY AND ORTHODONTICS**

CHANGE REGISTRATION SHEET

working program for the academic discipline

PROSTHETICS OF DEFECTS OF THE DENTITION

Field of study / specialty / scientific specialty: **31.05.03DENTISTRY**

Training profile: _____
(name) - for master's degree programs

Mode of study: **FULL-TIME**

Position	Number and name of the program section	Contents of the changes made	Effective date of the changes	Contributor's signature
1				

Approved at the department meeting

Protocol No. _____ of _____ 20__

Head of the Department

department name, academic title

signature

print name