

## *Summary of the working program of the academic discipline*

### « ORTHOPEDIC DENTISTRY »

General Educational Program of higher education 31.05.03 *Dentistry*

Department: **orthopedic dentistry and orthodontics**

**1. The purpose of mastering the discipline** (*participation in the formation of relevant competencies – specify the codes*): UC – 1, UPC – 5, PC – 6, PC – 7. To familiarize students with the principles of organization and operation of the orthopedic dentistry clinic and dental laboratory; to teach the peculiarities of examination of patients with defects and deformities of teeth and dentition, periodontal and TMJ diseases, deformities and defects of the maxillofacial region, pathological conditions of the dental system associated with the anomaly of the development of the dental system; to teach the basics of diagnosis and planning of orthopedic treatment; to teach students the methods of conducting the clinical stages of manufacturing fixed and removable denture structures; to familiarize students with the laboratory stages of manufacturing various fixed and removable dentures; to familiarize with possible complications in orthopedic treatment with fixed and removable dentures and methods of their elimination and prevention.

The objectives of mastering the discipline are also to master the necessary stock of theoretical knowledge and practical skills, the ability to use them in the treatment of patients, knowledge of the fundamental and organizational principles of orthopedic dentistry, dental materials science and dental prosthetic technology, prevention measures and recognition of major dental diseases, possession of clinical methods of treatment of orthopedic patients.

#### **2. Position of the academic discipline in the structure of the General Educational Program (GEP).**

**2.1.** The discipline of orthopedic dentistry refers to the core part of Block 1 of the General Educational Program of Higher Education (GEP HE) of the organization. The discipline is studied in the fourth, fifth, sixth, seventh, eighth, ninth and tenth semesters.

Orthopedic dentistry is a profile discipline of paramount importance. The main task of the Department of Orthopedic Dentistry is the theoretical and practical training of a doctor capable of solving issues of prevention, diagnosis and treatment of dental diseases. The general preventive orientation of the 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 tips that certainly accompany the therapeutic and preventive activities of the doctor.

Based on the knowledge gained by the student at the general clinical, general biological, dental departments and the Department of Children's Diseases, to teach students the peculiarities of prevention, clinic, diagnosis and treatment of dental diseases. To prepare a doctor who is able to work in a medical and preventive institution after the internship.

Orthopedic dentistry includes such a volume of theoretical material and practical skills that allows you to observe the principle of continuity of clinical training in the main sections of the discipline (prevention, therapy, orthodontics, surgery) and related specialties, providing an opportunity to teach, treat, study and put into practice new methods of prevention, treatment and medical examination.

Orthopedic dentistry is used in the formation of the content of the final state certification in the specialty dentistry.

### 3. Deliverables of mastering the academic discipline and metrics of competence acquisition

Mastering the discipline aims at acquiring the following universal (UC) or/and general professional (GPC) or/and professional (PC) competencies

p/n o.	Code competencies	The content of the competence (or part of it)	Code and name of the competence achievement indicator	As a result of studying the discipline, students should:		
				To know	Be able to	Possess
1.	UC-1	He is able to carry out a critical analysis of problem situations based on a systematic approach, to develop a strategy of actions	<p>IUC 1.1 Knows: methods of critical analysis and evaluation of modern scientific achievements; basic principles of critical analysis</p> <p>IUC 1.2 is able to: acquire 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 actions, experiment and experience</p> <p>IUC 1.3 Has practical experience: research of the problem of professional activity with the use of analysis, synthesis and other methods of intellectual activity; development of an action strategy for solving professional problems</p>	Methods of information analysis and synthesis.	Think abstractly, analyze and synthesize information.	Abstract thinking, analysis and synthesis of the received information.
2.	GPC - 5	Able to conduct a patient examination in order to establish a diagnosis when solving professional tasks.	<p>IGPC 5.1 Knows the methodology of collecting anamnesis of life and diseases, complaints in children and adults (their legal representatives); the methodology of examination and physical examination; clinical picture, methods of diagnosis of the most common diseases; methods of laboratory and instrumental studies to assess the state of health, medical indications for research, rules for interpreting their results; international statistical classification diseases and health-related problems (ICD); conditions requiring urgent medical care</p> <p>IGPC 5.2 is able to: collect complaints, anamnesis of life and disease in children and adults (their legal representatives), identify risk factors and causes of diseases; apply methods of examination and physical</p>	Disciplinary, administrative, civil, criminal liability.	Be aware of disciplinary, administrative, civil and criminal liability.	Ability and willingness to analyze the results of their own activities to prevent medical errors.

		<p>examination of children and adults; interpret the results of examination and physical examination of children and adults; diagnose the most common pathology in children and adults; identify risk factors of oncological diseases; formulate a preliminary diagnosis, make a plan for laboratory, instrumental and additional studies in children and adults in accordance with the procedures for providing medical care, clinical recommendations, taking into account the standards of medical care; send children and adults to laboratory, instrumental and additional studies in accordance with the current procedures for providing dental medical care, clinical recommendations, taking into account the standards of medical care; refer children and adults for consultations with specialist doctors in accordance with the procedures for providing medical care, clinical recommendations, taking into account the standards of medical care; interpret and analyze the results of consultations by specialist doctors of children and adults; interpret and analyze the results of basic (clinical) and additional (laboratory, instrumental) examination methods; to carry out differential diagnosis of diseases in children and adults; to identify clinical signs of sudden acute diseases, conditions, exacerbations of chronic diseases without obvious signs of life-threatening, requiring urgent medical care</p> <p>IGPC 5.3 Has practical experience in: collecting complaints, anamnesis of life and disease in children and adults (their legal representatives), identifying risk factors and causes of diseases; examination and physical examination of children and adults; diagnosis of the most common diseases in</p>			
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			<p>children and adults; identification of risk factors for major oncological diseases; formulation of a preliminary diagnosis, drawing up a plan for instrumental, laboratory, additional studies, consultations of specialist doctors; referral of patients to instrumental, laboratory, additional studies, consultations of specialist doctors in accordance with the current procedures for providing medical care, clinical recommendations, taking into account the standards of medical care; interpretation of data from additional (laboratory and instrumental) examinations of patients; setting a preliminary diagnosis in accordance with the international statistical classification of diseases and health-related problems (ICD); differential diagnosis of diseases; recognition of conditions arising from sudden acute diseases, exacerbation of chronic diseases without obvious signs of a threat to the patient's life and requiring urgent medical care</p>			
3.	PC -6	<p>Readiness to collect, analyze complaints and other information from the patient (relatives/ legal representatives), his anamnesis data, interpretation of examination results, laboratory, instrumental, pathoanatomic and other studies, including diagnostic studies using modern technical means and digital technologies, in order to recognize the condition or establish the presence or absence of dental diseases,</p>	<p>IPC 6.1 Knows:  The methodology of 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 adults with dental diseases  The procedure for providing medical care to children with dental diseases  Clinical recommendations on the provision of medical care to patients with dental diseases  Standards of medical care  IPC 6.2.Can:  interpret the results of examination, laboratory, instrumental, pathoanatomic and other studies, including diagnostic studies using modern technical means and digital technologies, in order to recognize the condition or establish the presence or absence of dental disease, symptoms, syndromes of dental diseases, the establishment of nosological</p>	International Statistical Classification of Diseases.	Apply the International Statistical Classification of Diseases	The methodology for determining the main pathological conditions and syndromes in patients in accordance with the International Statistical Classification of Diseases.

		<p>symptoms, syndromes of dental diseases, establishment of nosological forms in accordance with the International Statistical Classification of Diseases and Health-related Problems, and other regulatory documents of the Ministry of Health of the Russian Federation (Procedure for medical care, Standard of Medical Care, Clinical Recommendations on Medical Care, etc.)</p>	<p>forms in accordance with the International Statistical Classification of Diseases and Related Problems with health, and other regulatory documents of the Ministry of Health of the Russian Federation (the procedure for providing medical care, the Standard of medical care, Clinical recommendations on the provision of medical care, etc.)</p> <p>Develop a treatment plan for children and adults with dental diseases in accordance with the procedures for providing medical care, clinical recommendations, taking into account the standards of medical care.</p> <p>IPC 6.3 Has practical experience: interpretation of the results of examination, laboratory, instrumental, pathoanatomic and other studies, including diagnostic studies using modern technical means and digital technologies, in order to recognize the condition or establish the fact of the presence or absence of dental disease, symptoms, syndromes of dental diseases, the establishment of nosological forms in accordance with the International Statistical Classification of Diseases and Related Problems with health, and other regulatory documents of the Ministry of Health of the Russian Federation (the procedure for providing medical care, the Standard of medical care, Clinical recommendations on the provision of 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 providing medical care, clinical recommendations, taking into account the standards of medical care</p>			
4.	PC -7	<p>The ability to determine the tactics of management of patients with various dental diseases in</p>	<p>IPC 7.1 Knows: Methods of drug and non-drug treatment, medical indications for the use of medical devices for dental diseases Groups of medicines used to provide medical care in the</p>	<p>Tactics of management of patients with diseases of the dental</p>	<p>To determine the tactics of management of patients</p>	<p>Tactics of management of patients with diseases of the dental system.</p>

		<p>accordance with Clinical recommendations and other regulatory documents of the Ministry of Health of the Russian Federation in outpatient and day hospital conditions, taking into account the age of the patient.</p>	<p>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 unforeseen Principles, techniques and methods of anesthesia, selection of the type of local anesthesia in the treatment of dental diseases  Methods of preventing or eliminating complications, side effects, adverse reactions, including serious and unforeseen, that occurred during the examination or treatment of patients with diseases of the teeth, pulp, periodontal, periodontal, oral and lip mucosa  Materials science, technologies, equipment and medical products used in dentistry  Anatomy of the head, maxillofacial region, features of blood supply and innervation; structure of teeth; histology and embryology of the oral cavity and teeth, the main disorders of embryogenesis  IPC 7.2. Can:  Develop a treatment plan for children and adults with dental diseases in accordance with the procedures for providing medical care, clinical recommendations, taking into account the standards of medical care  To select and prescribe medications, medical devices (including dental materials), dietary nutrition, therapeutic and wellness regimen for the treatment of children and adults with dental diseases in accordance with the current procedures for providing medical care, clinical recommendations, taking into account the standards of medical care  Determine medical indications and contraindications to local anesthesia techniques of the maxillofacial region  To carry out local anesthesia (application, infiltration, conduction) in children and adults with dental diseases  Perform medical interventions, including therapeutic, in children and adults with dental diseases on an outpatient basis (excluding</p>	<p>system.</p>	<p>with diseases of the dental system.</p>	
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		<p>repeated endodontic treatment):</p> <ul style="list-style-type: none"> <li>- individual oral and dental hygiene training, selection of oral hygiene products and items</li> <li>- controlled teeth cleaning</li> <li>- professional oral and dental hygiene</li> <li>- injection of drugs in the maxillofacial region</li> <li>- local application of remineralizing drugs in the tooth area</li> <li>- deep fluoridation of tooth enamel</li> <li>- sealing the fissure of the tooth with a sealant</li> <li>- professional teeth whitening</li> <li>- grinding of hard tooth tissues</li> <li>- restoration of the tooth with a filling using dental cements, chemical curing materials, photopolymers</li> <li>-restoration of teeth with violation of the contact point</li> <li>- restoration of the tooth with filling material using anchor pins</li> <li>- application of devitalizing paste</li> <li>- pulpotomy (amputation of the crown pulp)</li> <li>- pulp extirpation</li> <li>- instrumental and medical treatment of a well-traversed root canal</li> <li>- temporary filling of the root canal with a drug</li> <li>- filling of the root canal of the tooth with paste, gutta-percha pins</li> <li>- removal of supragingival and subgingival dental deposits in the tooth area (by manual method)</li> <li>- ultrasound removal of supra-gingival and subgingival dental deposits in the tooth area</li> <li>- closed curettage for periodontal diseases in the tooth area</li> <li>- application of a therapeutic bandage for periodontal diseases in the area of one jaw</li> <li>- prescribing drug therapy for diseases of the oral cavity and teeth</li> <li>- appointment of dietary therapy for diseases of the oral cavity and teeth</li> </ul> <p>Perform medical interventions, including surgical, in children and adults with dental diseases on an outpatient basis (excluding the removal of retentive and dystopian teeth):</p> <ul style="list-style-type: none"> <li>- tooth extraction</li> <li>- removal of a temporary tooth</li> </ul>			
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		<ul style="list-style-type: none"> <li>- permanent tooth removal</li> <li>- opening and drainage of an odontogenic abscess</li> </ul> <p>To carry out step-by-step sanitation of the oral cavity (excluding sanitation of the oral cavity in children in the conditions of an anesthetic manual)</p> <p>Perform medical interventions, including orthopedic, in adults with dental diseases on an outpatient basis (excluding prosthetics on dental implants, technologies for automated manufacturing of orthopedic structures, complete removable plate and clasp prostheses):</p> <ul style="list-style-type: none"> <li>- obtaining anatomical and functional impressions</li> <li>- restoration of the tooth with a crown</li> <li>- restoration of the integrity of the dentition with fixed bridges</li> <li>- prosthetics with partial removable plate prostheses</li> <li>- correction of removable orthopedic construction</li> <li>- removal of a non-removable orthopedic structure</li> </ul> <p>Interpret the results of X-ray examinations of the maxillofacial region</p> <p>To consult children and adults with diseases of the mucous membrane of the mouth and lips, to determine indications for referral to specialist doctors</p> <p>Prevent or eliminate complications, side effects, undesirable reactions, including unforeseen ones, resulting from diagnostic or therapeutic manipulations, the use of medicines and (or) medical devices, non-drug treatment</p> <p>IPC 7.3 Has practical experience: Selection and appointment 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 recommendations, taking into account the standards of medical care</p> <p>Prescribing dietary nutrition, therapeutic and health regime for the treatment of dental diseases in children and adults in accordance with the current</p>			
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		<p>procedures for providing medical care, clinical recommendations, taking into account the standards of medical care</p> <p>Performing medical interventions in children and adults with dental diseases in accordance with the current procedures for providing medical care, clinical recommendations, taking into account the standards of medical care</p> <p>Evaluation of the results of medical interventions in children and adults with dental diseases</p> <p>Selection of the type and implementation of local anesthesia (application, infiltration, conduction) in children and adults with dental diseases</p> <p>Evaluation of the effectiveness and safety of the use of medicines, medical devices and non-drug treatment in children and adults with dental diseases</p> <p>Counseling of children and adults with diseases of the mucous membrane of the mouth and lips, determining indications for referral to specialist doctors</p> <p>Selection and appointment of medicines and medical devices, taking into account the diagnosis, age and clinical picture of dental disease in accordance with the procedures for providing medical care, clinical recommendations, taking into account the standards of medical care</p> <p>Determination of methods of administration, regimen and dose of drugs</p> <p>Selection and appointment of non-drug treatment for children and adults with dental diseases in accordance with the procedures for providing medical care, clinical recommendations, 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 manipulations, the use of medicines 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,</p>			
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			exacerbation of chronic diseases without obvious signs of a threat to the patient's life in an urgent form The use of medicines and medical devices in the provision of emergency medical care			
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#### 4. Volume of the academic discipline and types of academic work

Total labor intensity of the discipline is \_\_\_ CU (\_\_\_AH)

Type of educational work	Labor intensity		Labor intensity by semester (AH)						
	volume in credit units (CU)	volume in academic hours (AH)	4	5	6	7	8	9	10
Classroom work, including	10,32	372	<b>36</b>	54	<b>44</b>	<b>52</b>	<b>44</b>	<b>88</b>	<b>54</b>
Lectures (L)	2,66	96	<b>12</b>	14	<b>6</b>	<b>16</b>	<b>10</b>	<b>24</b>	<b>14</b>
Laboratory practicum (LP)*									
Practicals (P)	7,66	276	<b>24</b>	40	<b>38</b>	<b>36</b>	<b>34</b>	<b>64</b>	<b>40</b>
Seminars (S)									
Student's individual work (SIW)	6,68	240	<b>18</b>	36	<b>37</b>	<b>38</b>	<b>19</b>	<b>56</b>	<b>36</b>
Mid-term assessment									
exam	1	36					exam		
<b>TOTAL LABOR INTENSITY</b>	<b>18</b>	<b>648</b>	<b>54</b>	<b>90</b>	<b>81</b>	<b>90</b>	<b>63</b>	<b>144</b>	<b>90</b>

#### 5. Sections of the academic discipline and competencies that are formed

n/a	Competence code	Section name disciplines
1	CC-1, GPC-5, PC-6, PC-7	Orthopedic treatment of dental hard tissue defects.
2	CC-1, GPC-5, PC-6, PC-7	Orthopedic treatment of partial tooth loss
3	CC-1, GPC-5, PC-6, PC-7	Orthopedic treatment for complete loss of teeth.
4	CC-1, GPC-5, PC-6, PC-7	Orthopedic treatment of periodontal diseases.
5	CC-1, GPC-5, PC-6, PC-7	Gnatology.