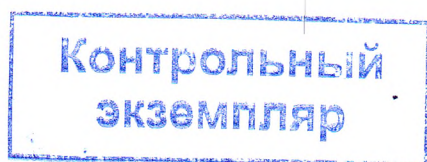


MINISTRY OF HEALTH OF THE REPUBLIC OF BELARUS

Educational Institution

«BELARUSIAN STATE MEDICAL UNIVERSITY»



APPROVED

by Rector of the Educational
Institution «Belarusian State
Medical University»



S.P.Rubnikovich

26.06.2025

Reg. # UD-0911-03-27/258/edu.

MAXILLOFACIAL ORTHOPEDICS AND ORTHOPEDIC DENTISTRY

**Curriculum of the educational institution
in the academic discipline for the specialty**

1-79 01 07 «Dentistry»

Curriculum is based on the educational program «Maxillofacial Orthopedics and Orthopedic Dentistry», approved 26.06.2024, registration # УД-0911-03-13/2425/уч.; on the educational plan in the specialty 1-79 01 07 «Dentistry», approved 15.05.2024, registration # 7-07-0911-03/2425/mf.

COMPILERS:

S.V.Ivashenko, Professor of the Department of Prosthetic Dentistry and Orthodontics of the Educational Institution «Belarusian State Medical University», DSc, Professor;

Ya.I.Timchuk, Head of the Department of Prosthetic Dentistry and Orthodontics of the Educational Institution «Belarusian State Medical University», PhD, Associate Professor;

A.I.Golovko, Associate Professor of the Department of Prosthetic Dentistry and Orthodontics of the Educational Institution «Belarusian State Medical University», PhD, Associate Professor

RECOMMENDED FOR APPROVAL:

by the Department of Prosthetic Dentistry and Orthodontics of the Educational Institution «Belarusian State Medical University»
(protocol # 11 of 09.04.2025);

by the Scientific and Methodological Council of the Educational Institution «Belarusian State Medical University»
(protocol # 10 of 26.06.2025)

EXPLANATORY NOTE

«Maxillofacial Orthopedics and Orthopedic Dentistry» is the academic discipline of the Prosthodontics Module, containing systematized scientific knowledge about prevention, etiology, pathogenesis and treatment of developmental anomalies, acquired defects, injuries, deformations and functional disorders of the masticatory apparatus and other organs of the dental system.

The aim of the academic discipline «Maxillofacial Orthopedics and Orthopedic Dentistry» is to develop the specialized competence for conducting orthopedic treatment of patients with complex maxillofacial pathology at an outpatient admission.

The objectives of the academic discipline «Maxillofacial Orthopedics and Orthopedic Dentistry» are to develop students' scientific knowledge about the etiology, pathogenesis, clinical picture, diagnostics, differential diagnostics, prevention, methods of treating patients with developmental anomalies, acquired defects, injuries, deformities and functional disorders of the masticatory apparatus and other organs of the dental system, the skills and abilities necessary for:

- examination of patients;
- application of diagnostic methods;
- interpreting the results of laboratory and instrumental research methods;
- providing orthopedic dental care to patients with a complex maxillofacial pathology;
- selecting prosthesis designs;
- choosing construction materials;
- treating patients with developmental anomalies, acquired defects, injuries, deformations and functional disorders of the masticatory apparatus and other organs of the dental system.

Relations to other educational disciplines

The knowledge, skills and abilities acquired while studying the academic discipline «Maxillofacial Orthopedics and Orthopedic Dentistry» are necessary for the successful learning the following academic disciplines: «Maxillofacial Surgery and Outpatient Surgery of the Maxillofacial Region», «Complex Periodontology».

A student who has mastered the content of the educational material of the academic discipline should have the following specialized competence: conduct examination, apply diagnostic methods, modern technologies of treatment and rehabilitation of patients with defects of teeth hard tissues and partial secondary adentia, patients with complete loss of teeth and the basics of temporary and permanent splinting of teeth with the use of fixed and removable orthopedic structures for periodontal tissue diseases, patients with complex maxillofacial pathology at the in-patient department.

As a result of studying the academic discipline «Maxillofacial Orthopedics and Orthopedic Dentistry» the student should

know:

etiology, pathogenesis, clinical picture, diagnostics, differential diagnostics, prevention and methods of orthopedic treatment of patients with developmental

anomalies, acquired defects, injuries, deformities and functional disorders of the masticatory apparatus and other organs of the dentoalveolar system;

methods of preparing the oral cavity for orthopedic interventions, methods of pain relief;

basic and auxiliary dental materials for the manufacture of fixed, removable and maxillofacial prostheses;

mechanisms of adaptation to prostheses and the effect of orthopedic interventions on the dentoalveolar system and the patient's body;

organizational aspects of the activities at the orthopedic departments of dental clinics;

rules of ethics and deontology in orthopedic dentistry;

be able to:

plan and conduct communication interactions;

organize the workplace of the dentist-orthopedist taking into account ergonomics and in accordance with the requirements of asepsis, antisepsis, safety engineering;

prevent general complications in patients during dental appointments and, if necessary, provide emergency medical care;

conduct examination of patients;

determine indications for general health and special measures before prosthetics;

interpret the results of the main and additional research methods;

formulate a diagnosis based on the data of the conducted research;

draw up an orthopedic treatment plan;

justify the choice of treatment method and design of fixed, removable and maxillofacial prostheses;

draw up medical documentation;

provide medical care in conditions that pose a threat to the life and (or) health of patients in case of fainting, shock, collapse;

master:

methods of patient's examination in orthopedic dentistry;

methods of diagnosing and planning the orthopedic treatment of patients;

methods of orthopedic treatment in patients with developmental anomalies, acquired defects, injuries, deformities and functional disorders of the masticatory apparatus and other organs of the dental system;

methods of orthopedic treatment in patients with pathology of the temporomandibular joint;

methods of orthopedic treatment in patients with chronic diseases of the oral mucosa, allergies and galvanoses;

techniques for obtaining impressions with various impression materials;

methods for determining centric occlusion and centric relationship in case of partial and complete tooth loss;

techniques for checking the designs of fixed, removable and maxillofacial prostheses;

techniques for fitting and applying fixed, removable and maxillofacial prostheses;

methods of using various dental implant systems in prosthetics for patients with complete anodontia;

methods of treating patients with periodontal diseases

Total number of hours for the study of the discipline is 390 academic hours, of which 264 classroom hours and 126 hours of student independent work. Classroom hours according to the types of studies: lectures – 12 hours, practical classes – 252 hours.

Form of higher education – full-time.

Intermediate assessment is carried out in accordance with the curriculum for the specialty in the form of differentiated credit (9th semester) and the credit (10th semester).

ALLOCATION OF ACADEMIC TIME ACCORDING TO SEMESTERS OF STUDY

Code, name of specialty	Semester	Total number of academic hours	Number of classroom hours				Out-of-class self-studies	Form of interim assessment
			Number of classroom hours	including				
				lectures		practical classes		
				class lectures	SSIW			
1-79 01 07 «Dentistry»	9	174	121	9	-	112	53	differentiated credit
	10	216	143	3	-	140	73	credit
		390	264	12	-	252	126	

THEMATIC PLAN

Section (topic) name	Number of class hours	
	lectures	practical
1. Maxillofacial orthopedics	9	112
1.1. Orthopedic treatment of patients with dentoalveolar anomalies and deformities	-	21
1.2. Maxillofacial orthopedic dentistry	3	21
1.3. Dental implants	3	21
1.4. Orthopedic treatment of patients with diseases of the oral mucosa	-	7
1.5. Orthopedic treatment of patients with galvanoses and allergies	1,5	14
1.6. Orthopedic treatment of patients with increased tooth abrasion	-	14
1.7. Orthopedic treatment of patients with temporomandibular joint diseases	1,5	14
2. Outpatient orthopedic dentistry	3	140
2.1. Orthopedic treatment and medical rehabilitation of patients with pathology of hard dental tissues	-	21
2.2. Orthopedic treatment and medical rehabilitation of patients with partial anodontia with fixed dentures	-	21
2.3. Orthopedic treatment and medical rehabilitation of patients with partial anodontia with removable dentures	-	14
2.4. Orthopedic treatment and medical rehabilitation of patients with complete anodontia with removable dentures	-	21
2.5. Orthopedic treatment and medical rehabilitation of patients with periodontal diseases	-	21
2.6. Orthopedic treatment and medical rehabilitation of patients using dental implants	-	28
2.7. Tactical, diagnostic and technological errors in orthopedic dentistry	1,5	7
2.8. Fundamentals of the organization of dental orthopedic care in the Republic of Belarus	1,5	7
Total hours	12	252

CONTENT OF THE EDUCATIONAL DISCIPLINE

1. Maxillofacial orthopedics

1.1. Orthopedic treatment of patients with dentoalveolar anomalies and deformities

Ensuring epidemiological safety in the provision of medical care. Hygienic antisepsis of the skin of the hands of medical personnel.

Methods of examining patients with dentoalveolar anomalies and deformations. Diagnosis, plan and tasks of orthopedic treatment. Filling out the patient's medical record and work order during the orthopedic appointment. Principles and features of pathogenetic treatment of dentoalveolar anomalies in the formed bite. Application of surgical, physical and physico-pharmacological methods in the complex treatment of dentoalveolar anomalies and deformations. Prosthetics for anomalies and deformations of the dentoalveolar system in adults.

Examination of patients with dental diseases: diagnosis and preparation of a treatment plan for patients in accordance with clinical protocols, selection of maxillofacial devices and prostheses for the treatment of patients with anomalies and deformations of the dental system.

1.2. Maxillofacial orthopedic dentistry

Orthopedic treatment methods in case of pseudoarthrosis, improperly fused jaw fractures, bone defects of the lower jaw, microstomia. Types of structures and devices and their clinical and laboratory stages of manufacturing. Orthopedic treatment methods for acquired and congenital defects of the palate. Orthopedic treatment methods for surgical interventions on the jaws, designs of forming prostheses (devices). Obtaining a face mask. Methods of orthopedic treatment in patients with tumors of the dental system. Orthopedic treatment methods for surgical interventions for benign and malignant tumors on the jaws. Post-resection prostheses.

Examination of patients with dental diseases: diagnosis and treatment plan for patients with facial defects and injuries, selection of maxillofacial devices and prostheses for the treatment of patients with palate defects.

1.3. Dental implants

Implants: types and characteristics. Indications and contraindications for their application. Prosthetics using dental implants in the manufacture of fixed denture structures. Prosthetics using dental implants while manufacturing removable denture structures. Modern materials for fixing non-removable dentures supported by dental implants.

Examination of patients with dental diseases: planning orthopedic treatment of patients with anodontia with fixed denture structures supported by dental implants using cone-beam computed tomography in anomalies in accordance with the clinical protocol.

1.4. Orthopedic treatment of patients with diseases of the oral mucosa

Etiology, clinical picture, diagnosing diseases of the oral mucosa. Differential diagnostics and features of orthopedic treatment for chronic diseases of the oral mucosa. Features of orthopedic treatment in patients with diseases of the oral mucosa. Features of orthopedic treatment in patients with diseases of the oral mucosa prone to malignancy (leukoplakia, lichen planus, etc.)

Examination of patients with dental diseases: diagnosis and treatment plan for patients in accordance with clinical protocols.

1.5. Orthopedic treatment of patients with galvanoses and allergies

Etiology, pathogenesis, clinical picture and manifestation of allergic conditions and galvanoses in the oral cavity, differential diagnostics (allergies, galvanoses, paresthesias). Prevention and treatment methods of allergies and galvanoses. Features of prosthetics and selection of materials in case of allergies.

Examination of patients with dental diseases: diagnosis and drawing up of a treatment plan for patients.

1.6. Orthopedic treatment of patients with increased tooth abrasion

Increased tooth abrasion: etiology, pathogenesis, clinical manifestations, diagnostics and classification.

Methods of orthopedic treatment and prevention of patients with increased tooth abrasion. Clinical and laboratory stages of manufacturing orthopedic structures.

Examination of patients with dental diseases: diagnosis and preparation of a treatment plan for patients in accordance with clinical protocols.

1.7. Orthopedic treatment of patients with temporomandibular joint diseases

Classification of temporomandibular joint diseases: Etiology, pathogenesis, clinical picture, differential diagnostics and methods of examination and treatment of temporomandibular joint diseases. Orthopedic treatment of patients with increased tooth abrasion complicated by temporomandibular joint dysfunction.

Examination of patients with dental diseases: diagnosis and development of a treatment plan for patients in accordance with the clinical protocol.

2. Outpatient orthopedic dentistry

2.1. Orthopedic treatment and medical rehabilitation of patients with pathology of hard dental tissues

Etiology, clinical picture of a dental hard tissues pathology. Methods of examination of patients with defects of hard tissues of tooth crowns. Methods of anesthesia during preparation of dental hard tissues. Inlays, indications for their use, features of cavity formation during prosthetics with inlays depending on the topography of the defect. Methods of making inlays. Clinical and laboratory stages of restoration of a tooth crown with the help of an inlay. Metal crowns, indications for their use. Preparation of teeth for crowns, methods of assessment of preparation quality. Method of obtaining impressions and criteria for their assessment. Method of fitting of single crowns. Rules and sequence of application and fixation of crowns.

Plastic, combined, cast, metal-acrylic, metal-ceramic crowns: indications for their use, clinical and laboratory stages of manufacturing. Orthopedic treatment in case of complete absence of a tooth crown. Pin structures and their elements, indications for use. Methods of examination of patients with complete absence of a tooth crown. Requirements for the condition of the root and surrounding tissues. Clinical and laboratory stages of manufacturing pin structures (simple pin tooth and others). Orthopedic treatment in case of absence of a tooth crown with post structures, indications for their use and their clinical and laboratory stages of manufacture.

Provision of emergency medical care in case of sudden onset of diseases, conditions and (or) exacerbation of chronic diseases in a patient during the orthopedic appointment in outpatient and polyclinic healthcare organizations.

Examination of patients with dental diseases: diagnosis and preparation of a treatment plan for patients in accordance with the clinical protocol, preparation of teeth for the manufacturing metal-acrylic, metal-ceramic and metal-free bridge prostheses, preparation of teeth for the manufacturing restorative pin structures.

2.2. Orthopedic treatment and medical rehabilitation of patients with partial anodontia with fixed dentures

Partial anodontia: clinical picture, etiology, classification of dentition defects (Kennedy, Gavrilov). Orthopedic treatment of patients with partial anodontia with bridge prostheses, indications for their use. Methods of examination of patients with dentition defects. Filling out the patient's educational medical record and the work order at an orthopedic appointment. Tooth preparation in prosthetics of partial absence of teeth with bridge prostheses. Criteria for assessing the quality of tooth preparation. Features of tooth preparation depending on the type of prosthesis. Determination and methods of fixing the central occlusion in prosthetics of partial absence of teeth with bridge prostheses. Fitting crowns in prosthetics of partial absence of teeth with bridge prostheses, taking impressions. Checking the designs of bridge prostheses. Fitting and application of bridge prostheses. Criteria for assessing the quality of supporting elements and the body of the prosthesis. Fixation of bridge prostheses. Clinical and laboratory stages of manufacturing cast, metal-acrylic, metal-ceramic and metal-free bridge prostheses.

Examination of patients with dental diseases: diagnosing partial anodontia in accordance with the clinical protocol, preparation of teeth for the manufacturing metal-acrylic, metal-ceramic and metal-free bridge prostheses.

2.3. Orthopedic treatment and medical rehabilitation of patients with partial anodontia with removable dentures

Defects of dental arches (partial anodontia): etiology, pathogenesis, clinical picture, classification of defects. Features of examination and laboratory research methods for defects of dental arches, justification of diagnosis. Orthopedic treatment of partial anodontia with removable dentures, indications for use, clinical and laboratory stages of their manufacture. Orthopedic treatment of patients with partial anodontia with removable plate and clasp dentures. Characteristics of partial removable dentures, positive and negative properties, clinical and laboratory stages of their manufacture. Indications for the use of clasp dentures, design elements and their purpose. The Ney clasp system, parallelometry. Methodology for manufacturing clasp dentures and clinical and laboratory stages of their manufacture. Medical rehabilitation of patients with defects of dental arches.

Examination of patients with dental diseases: determination and fixation of the central relationship of the jaws during the manufacture of removable dentures, selection of the design and supporting elements of the clasp denture depending on the size and topography of the defect.

2.4. Orthopedic treatment and medical rehabilitation of patients with complete anodontia with removable dentures

Complete anodontia: etiology, pathogenesis, examination, clinical picture, classification. Orthopedic treatment of patients with complete anodontia. Special preparation of the oral cavity for prosthetics in case of complete loss of teeth. Methods of fixation and stabilization of removable dentures in case of complete absence of teeth. Fitting of an individual tray (according to the Herbst method). Obtaining and evaluating functional impressions. Justification for the choice of impression material for obtaining functional impressions. Boundaries of denture bases in case of complete

absence of teeth. Determination of fixation of the central relationship of the jaws in case of complete absence of teeth (methods). Construction of dental arches in case of complete absence of teeth. Analysis and correction of medical and technical errors in determining the central relationship of the jaws. Medical rehabilitation of patients with complete anodontia.

Examination of patients with dental diseases: diagnosis of «complete anodontia» in accordance with the clinical protocol, determination of boundaries and fitting of an individual tray to the upper and lower jaws using Herbst tests, obtaining a functional impression of the upper and lower jaws, correction, relining and recommendations for the use and care of complete removable dentures.

2.5. Orthopedic treatment and medical rehabilitation of patients with periodontal diseases

Etiology, pathogenesis, clinical picture, diagnostics and orthopedic treatment of patients with periodontal diseases. Classification of periodontal diseases. Differential diagnostics of periodontal diseases. Biological bases of splinting. Periodontal reserve forces and their changes depending on the degree of alveolar ridge atrophy. Odontoparodontogram analysis. Relationship between the degree of inflammation in periodontal tissues and tooth mobility. The role of occlusal trauma in the development of periodontal diseases. Selective grinding as the first stage of orthopedic treatment of periodontal diseases. Temporary and permanent splinting, indications, types and characteristics of temporary and permanent splints, clinical and laboratory stages of their manufacture. Orthodontic treatment of patients with periodontal diseases.

Examination of patients with dental diseases: diagnosis and drawing up of a treatment plan for patients with periodontitis in accordance with the clinical protocol, analysis of the odontoparodontogram, determination of indications for temporary and permanent dental splinting. Choosing the design.

2.6. Orthopedic treatment and medical rehabilitation of patients using dental implants

Dental implants: types, structural materials, indications and contraindications for use. Orthopedic treatment of patients with partial anodontia with fixed dentures supported by cemented dental implants. Selection of materials for fixing dentures. Orthopedic treatment of patients with partial anodontia with fixed dentures supported by screw-retained dental implants. Orthopedic treatment of patients with partial anodontia using dental implants supported by multi-units.

Examination of patients with dental diseases: selection of dental implant types depending on the clinical picture. Planning orthopedic treatment of patients with anodontia with fixed dental prosthesis structures supported by dental implants using cone-beam computed tomography. Planning orthopedic treatment of patients with anodontia with fixed dental prosthesis structures supported by dental implants using cone-beam computed tomography.

2.7. Tactical, diagnostic and technological errors in orthopedic dentistry

Errors in orthopedic treatment of patients with removable and fixed dentures. Errors in the manufacture of fixed dentures at clinical stages. Errors in the manufacture of fixed dentures at laboratory stages. Errors in the manufacture of removable dentures

at clinical stages. Errors in the manufacture of removable dentures at laboratory stages. Errors in orthopedic treatment of patients using dental implants.

Examination of patients with dental diseases: examination, diagnosis and drawing up of a treatment plan for patients with various pathologies of the dental system in accordance with clinical protocols.

2.8. Fundamentals of the organization of dental orthopedic care in the Republic of Belarus

Structure of the provision of dental orthopedic care in the Republic of Belarus. Normative legal acts governing the provision of dental orthopedic care in the Republic of Belarus. Organizational and economic aspects of the activities of orthopedic departments of dental clinics, sanitary and hygienic requirements and equipment of workplaces of a dentist and a dental technician. Professional and ethical standards, legal legislation, orders and instructional letters defining the work of an orthopedic dentist. Staffing standards for medical workers. Structure of a dental clinic. Duties of an orthopedic dentist. Quantitative and qualitative indicators of work and workload standards of an orthopedic dentist. Accounting and reporting documentation of an orthopedic dentist.

Examination of patients with dental diseases: provision of emergency care at the dental appointment.

**EDUCATIONAL DISCIPLINE «MAXILLOFACIAL ORTHOPEDICS AND ORTHOPEDIC DENTISTRY»
CURRICULAR CHART**

Section, topic #	Section (topic) name	Number of class hours		Literature	Practical skill	Forms of control	
		lectures	practical classes			of a practical skill	of current/interim assessment
	9 th semester						
	Lectures	9	-				
1.2.	Orthopedic treatment methods for pseudoarthrosis, bone defects, malunion of fractures and microstomia	1,5	-	1, 2, 3, 4, 5, 6			
1.2.	Orthopedic methods of treatment for congenital and acquired defects of the hard and soft palate	1,5	-	1, 2, 3, 4, 5, 6			
1.3.	Dental implants. Classifications, indications and contraindications for their use	1,5	-	1, 2, 3, 4, 5, 6			
1.3.	Clinical and laboratory stages of manufacturing fixed and removable dental prostheses with fixation on dental implants	1,5	-	1, 2, 3, 4, 5, 6			
1.5.	Galvanoses and allergies to prosthetic materials. Diseases of the oral mucosa	1,5	-	1, 2, 3, 4, 5, 6			
1.7.	TMJ diseases. Etiology, clinical manifestations, diagnostics, differential diagnostics and orthopedic treatment methods	1,5	-	1, 2, 3, 4, 5, 6			
	Practical classes	-	112				
1.1.	Principles and features of pathogenetic treatment of dentoalveolar anomalies in the formed bite. Application of surgical,	-	7	1, 2, 3, 4, 5, 6	Hygienic hand rubbing. Filling in the patient's medical documentation.	Checking the training patient's medical record *	Survey; electronic testing; solving situational problems

	physical and physical-pharmacological methods in the complex treatment of dentoalveolar anomalies				Filling in the training patient's job order during the orthopedic appointment	Checking a training order for orthopedic consultation	
1.1.	Orthopedic treatment of the dental system anomalies in adult patients	-	7	1, 2, 3, 4, 5, 6	Selection of maxillofacial devices and prostheses for the treatment of patients with the dental system anomalies	Performing practical skills during an outpatient appointment	Survey; electronic testing; solving situational problems
1.1.	Orthopedic treatments for pseudoarthrosis, malunion fractures, bone defects, microstomia	-	7	1, 2, 3, 4, 5, 6	Diagnosing and treatment planning for patients	Performing practical skills during an outpatient appointment	Control survey* ; electronic testing; solving situational problems
1.2.	Deformities of dental arches and bite. Etiology, pathogenesis, diagnostics, clinical manifestations. Treatment methods of deformities of dental arches and bite	-	7	1, 2, 3, 4, 5, 6	Diagnosing and treatment planning for patients	Performing practical skills during an outpatient appointment	Survey; electronic testing; solving situational problems
1.2.	Orthopedic treatment methods for congenital and acquired defects of the palate	-	7	1, 2, 3, 4, 5, 6	Selection of maxillofacial appliances and prostheses for the treatment of patients with palate defects	Performing practical skills during an outpatient appointment; solving situational problems	Survey; electronic testing; solving situational problems
1.2.	Orthopedic treatment for jaw resections. Orthopedic treatment for facial defects and injuries	-	7	1, 2, 3, 4, 5, 6	Diagnosing and treatment planning for patients	Performing practical skills during an outpatient appointment	Control survey* ; electronic testing; solving situational problems
1.3.	Dental implants. Characteristics. Indications and contraindications. Main types of dental implants	-	7	1, 2, 3, 4, 5, 6	Planning orthopedic treatment of patients with anodontia with fixed dental prosthesis structures supported by dental implants using cone-beam computed tomography	Performing practical skills during an outpatient appointment; solving situational problems	Survey; electronic testing; solving situational problems
1.3.	Features of prosthetics using dental implants in the manufacture of fixed dentures	-	7	1, 2, 3, 4, 5, 6	Planning orthopedic treatment of patients with anodontia with fixed dental prosthesis structures supported by dental implants	Performing practical skills during an outpatient appointment; solving situational problems	Survey; electronic testing; solving situational problems

					using cone-beam computed tomography		
1.3.	Features of prosthetics using dental implants in the manufacture of removable dentures	-	7	1, 2, 3, 4, 5, 6	Planning orthopedic treatment of patients with anodontia with removable dental prosthesis structures supported by dental implants using cone-beam computed tomography	Performing practical skills during an outpatient appointment; solving situational problems	Control survey*; electronic testing; solving situational problems
1.4.	Features of orthopedic treatment in patients with diseases of the oral mucosa	-	7	1, 2, 3, 4, 5, 6	Diagnosing and treatment planning for patients	Performing practical skills during an outpatient appointment	Survey; electronic testing; solving situational problems
1.5.	Pathological changes in the state of the body, tissues and organs of the oral cavity associated with the presence of dentures. Galvanosis. Etiology, pathogenesis, clinical manifestations, prevention, treatment methods	-	7	1, 2, 3, 4, 5, 6	Diagnosing and treatment planning for patients	Performing practical skills during an outpatient appointment	Survey; electronic testing; solving situational problems
1.5.	Pathological changes in the state of the body, tissues and organs of the oral cavity associated with the presence of dentures. Galvanosis. Etiology, pathogenesis, clinical manifestations, prevention, treatment methods	-	7	1, 2, 3, 4, 5, 6	Diagnosing and treatment planning for patients	Performing practical skills during an outpatient appointment	Control survey*; electronic testing; solving situational problems
1.6.	Increased tooth abrasion. Etiology, pathogenesis, clinical manifestations, diagnostics and classification	-	7	1, 2, 3, 4, 5, 6	Diagnosing and treatment planning for patients	Performing practical skills during an outpatient appointment	Survey; electronic testing; solving situational problems
1.6.	Methods of orthopedic treatment of patients with increased tooth abrasion	-	7	1, 2, 3, 4, 5, 6	Diagnosing and treatment planning for patients	Performing practical skills during an outpatient appointment*	Control survey*; electronic testing; solving situational problems
1.7.	Orthopedic treatment of patients with increased tooth abrasion complicated by TMJ dysfunction	-	7	1, 2, 3, 4, 5, 6	Diagnosing and treatment planning for patients	Performing practical skills during an outpatient appointment	Survey; electronic testing; solving situational problems

1.7.	Diagnostics and treatment of patients with TMJ diseases. Etiology, pathogenesis, clinical manifestations, differential diagnostics, orthopedic treatment methods	-	7	1, 2, 3, 4, 5, 6	Diagnosing and treatment planning for patients	Performing practical skills during an outpatient appointment	Survey; electronic testing; solving situational problems. Differentiated credit
10th semester							
	Lectures	3	-				
2.7.	Errors and complications in orthopedic dentistry	1,5	-	1, 2, 3, 4, 5, 6			
2.8.	Organization of orthopedic dental care in the Republic of Belarus	1,5	-	1, 2, 3, 4, 5, 6			
	Practical classes	-	140				
2.1.	Defects of the dental crown hard tissues. Inlays and veneers	-	7	1, 2, 3, 4, 5, 6	Diagnosing and treatment planning for patients	Performing practical skills during an outpatient appointment	Survey; electronic testing; solving situational problems
2.1.	Defects of the dental crown hard tissues. Artificial crowns	-	7	1, 2, 3, 4, 5, 6	Preparation of teeth for manufacturing metal-acrylic, metal-ceramic and metal-free bridge prostheses	Performing practical skills during an outpatient appointment / on the simulation equipment	Survey; electronic testing; solving situational problems
2.1.	Defects of the dental crown hard tissues. Pin structures, cast post-and-core inlays	-	7	1, 2, 3, 4, 5, 6	Preparation of teeth for manufacturing restorative pin structures	Performing practical skills during an outpatient appointment / on the simulation equipment	Control survey*; electronic testing; solving situational problems
2.2.	Partial defects of dental arches. Etiology, pathogenesis, classification, clinical manifestations, diagnostics of defects of dental arches	-	7	1, 2, 3, 4, 5, 6	Diagnosing and treatment planning for patients	Performing practical skills during an outpatient appointment	Survey; electronic testing; solving situational problems
2.2.	Etiology, pathogenesis, clinical manifestations, diagnostics of partial anodontia	-	7	1, 2, 3, 4, 5, 6	Filling in the training patient's medical record and job order during the orthopedic appointment	Checking the training patient's medical record, filling training job order during the orthopedic appointment	Survey; electronic testing; solving situational problems

2.2.	Orthopedic treatment of patients with partial anodontia with fixed bridge prostheses	-	7	1, 2, 3, 4, 5, 6	Preparation of teeth for the production of metal-acrylic, metal-ceramic and metal-free bridge prostheses	Performing practical skills during an outpatient appointment / on the simulation equipment;	Control survey*; electronic testing; solving situational problems
2.3.	Orthopedic treatment of patients with partial anodontia with removable dentures	-	7	1, 2, 3, 4, 5, 6	Determination and fixation of the central relationship of the jaws in manufacturing removable dentures	Performing practical skills during an outpatient appointment	Survey; electronic testing; solving situational problems
2.3.	Orthopedic treatment of patients with partial anodontia with removable dentures. Clasp dentures	-	7	1, 2, 3, 4, 5, 6	Selection of the design and supporting elements of the clasp prosthesis depending on the size and topography of the defect	Performing practical skills during an outpatient appointment	Control survey*; electronic testing; solving situational problems
2.4.	Orthopedic treatment of patients with complete anodontia	-	7	1, 2, 3, 4, 5, 6	Diagnosing and treatment planning for patients	Performing practical skills during an outpatient appointment	Survey; electronic testing; solving situational problems
2.4.	Orthopedic treatment of patients with complete anodontia. Fitting of an individual tray (according to the Herbst method). Obtaining and evaluating functional impressions	-	7	1, 2, 3, 4, 5, 6	Determining the boundaries and fitting an individual tray to the upper and lower jaws using the Herbst tests. Obtaining a functional impression of the upper and lower jaws	Performing practical skills during an outpatient appointment; visual assessment of the practical skill	Survey; electronic testing; solving situational problems
2.4.	Orthopedic treatment of patients with complete anodontia. Methods of determining the central relationship of the jaws and constructing dental arches in the case of complete absence of teeth	-	7	1, 2, 3, 4, 5, 6	Correction, relining and recommendations for the use and care of complete removable dentures	Performing practical skills during an outpatient appointment	Control survey*; electronic testing; solving situational problems
2.5.	Etiology, pathogenesis, clinical manifestations, diagnostics and orthopedic treatment of patients with periodontal diseases	-	7	1, 2, 3, 4, 5, 6	Diagnosing and treatment planning for patients	Performing practical skills during an outpatient appointment	Survey; electronic testing; solving situational problems
2.5.	Biological bases of splinting. The role of occlusal trauma in the development of periodontal diseases	-	7	1, 2, 3, 4, 5, 6	Interpretation of odonto-periodontogram	Performing practical skills during an outpatient appointment	Survey; electronic testing; solving situational problems

2.5.	Temporary and permanent splinting. Orthodontic treatment for periodontal diseases	-	7	1, 2, 3, 4, 5, 6	Determining indications for temporary and permanent dental splinting. Selecting the design	Performing practical skills during an outpatient appointment *	Control survey*; electronic testing; solving situational problems
2.6.	Dental implants. Types. Structural materials. Indications and contraindications for use	-	7	1, 2, 3, 4, 5, 6	Selection of dental implants depending on the clinical picture	Performing practical skills during an outpatient appointment; solving situational problems	Survey; electronic testing; solving situational problems
2.6.	Orthopedic treatment of patients with partial anodontia with fixed dental prostheses supported by cement-retained dental implants	-	7	1, 2, 3, 4, 5, 6	Planning orthopedic treatment of patients with anodontia with fixed dental prosthesis structures supported by dental implants using cone-beam computed tomography	Performing practical skills during an outpatient appointment; solving situational problems	Survey; electronic testing; solving situational problems
2.6.	Orthopedic treatment of patients with partial anodontia with fixed dental prostheses supported by dental implants with screw fixation	-	7	1, 2, 3, 4, 5, 6	Planning orthopedic treatment of patients with anodontia with fixed dental prosthesis structures supported by dental implants using cone-beam computed tomography	Performing practical skills during an outpatient appointment; solving situational problems	Survey; electronic testing; solving situational problems
2.6.	Orthopedic treatment of patients with partial anodontia using dental implants supported by multi-units	-	7	1, 2, 3, 4, 5, 6	Planning orthopedic treatment of patients with anodontia with removable dental prosthesis structures supported by dental implants using cone-beam computed tomography	Performing practical skills during an outpatient appointment; solving situational problems *	Control survey*; electronic testing; solving situational problems
2.7.	Tactical, diagnostic and technological errors in orthopedic dentistry	-	7	1, 2, 3, 4, 5, 6	Providing emergency care during the dental appointment (fainting, shock, collapse).	Performing practical skills during an outpatient appointment; solving situational problems	Survey; electronic testing; solving situational problems

2.8.	Organizational foundations of dental orthopedic care	-	7	1, 2, 3, 4, 5, 6			Survey; electronic testing; solving situational problems. Credit
	Total hours	12	252				

* is a mandatory form of current assessment

INFORMATION AND INSTRUCTIONAL UNIT

LITERATURE

Basic:

1. Removable Partial Dentures. A Practitioners' Manual / Editor Olcay Şakar. – 2nd Edition. – Springer, 2024. – 423 p.
2. Waliszewski, Michael P. Brudvik's Advanced Removable Partial Dentures. Book of Prosthodontics. – 2nd Edition. – UK : Quintessence Publishing, 2022. – 203 p.

Additional:

3. Complete dentures. Algorithm of producing / S. A. Naumovich [et al.]. – 3^d ed. – Minsk : BSMU, 2018. – 32 p.
4. Fixed dentures. Algorithm of producing. / S. A. Naumovich [et al.]. – 3^d ed. – Minsk : BSMU, 2018. – 30 p.
5. Removable partial dentures. Algorithm of producing. / S. A. Naumovich [et al.]. – 3^d ed. – Minsk : BSMU, 2018. – 16 p.

Electronic courseware for the educational discipline «Maxillofacial prosthetics and prosthodontics»

6. <https://etest.bsmu.by/course/view.php?id=498>.

METHODOLOGICAL RECOMMENDATIONS FOR ORGANIZING AND IMPLEMENTING INDEPENDENT WORK OF STUDENTS IN THE ACADEMIC DISCIPLINE

The time allocated for independent work can be used by students to:

- prepare for lectures, practical classes;
- prepare for credit and differentiated credit for the academic discipline;
- study topics (questions) submitted for independent study;
- solve situational problems;
- take notes from educational literature;
- compile a review of scientific literature on a given topic;
- compile a thematic selection of literary sources, Internet sources;
- drafting a literature review on given topic.

LIST OF AVAILABLE DIAGNOSTIC TOOLS

The following forms of current assessment are used to diagnose competencies:

- survey;
- control survey;
- electronic testing;
- solving situational problems

LIST OF AVAILABLE TEACHING METHODS

- Linear (traditional) method;
- active (interactive) methods:
- Problem-Based Learning (PBL);
- Case-Based Learning (CBL);
- Simulation-based learning.

LIST OF PRACTICAL SKILLS

Name of practical skills	Form of practical skills control
1. Hygienic hand rubbing	Visual assessment of the practical skill performance
2. Diagnosing and treatment planning for patients	Performing practical skills during an outpatient appointment
3. Filling in the patient's medical documentation	Checking the patient's medical documentation
4. Filling in the training patient's job order during the orthopedic appointment	Checking the patient's job order
5. Selection of maxillofacial devices and prostheses for the treatment of patients with the dental system anomalies	Performing practical skills during an outpatient appointment
6. Selection of maxillofacial appliances and prostheses for the treatment of patients with palate defects	Performing practical skills during an outpatient appointment; solving situational problems
7. Planning orthopedic treatment of patients with anodontia with fixed dental prosthesis structures supported by dental implants using cone-beam computed tomography	Performing practical skills during an outpatient appointment; solving situational problems
8. Preparation of teeth for manufacturing restorative pin structures	Performing practical skills during an outpatient appointment / on the simulation equipment
9. Preparation of teeth for manufacturing metal-acrylic, metal-ceramic and metal-free bridge prostheses	Performing practical skills during an outpatient appointment / on the simulation equipment
10. Determination and fixation of the central relationship of the jaws in manufacturing removable dentures	Performing practical skills during an outpatient appointment
11. Selection of the design and supporting elements of the clasp prosthesis depending on the size and topography of the defect	Performing practical skills during an outpatient appointment / on the simulation equipment
12. Determination of boundaries and fitting of an individual tray to the upper and lower jaws using the Herbst tests, obtaining a functional impression of the upper and lower jaws	Performing practical skills during an outpatient appointment; visual assessment of the practical skill
13. Correction, relining and recommendations for use and care of complete removable dentures	Performing practical skills during an outpatient appointment
14. Interpretation of odonto-periodontogram	Performing practical skills during an outpatient appointment
15. Determining indications for temporary and permanent dental splinting. Selecting the design	Performing practical skills during an outpatient appointment
16. Selection of the type of dental implants depending on the clinical picture	Performing practical skills during an outpatient appointment; solving situational problems

Name of practical skills	Form of practical skills control
17. Planning orthopedic treatment of patients with anodontia with fixed dental prosthesis structures supported by dental implants using cone-beam computed tomography	Performing practical skills during an outpatient appointment; solving situational problems
18. Planning orthopedic treatment of patients with anodontia with removable dental prosthesis structures supported by dental implants using cone-beam computed tomography	Performing practical skills during an outpatient appointment; solving situational problems
19. Providing emergency care at the dental appointment (fainting, shock, collapse)	Performing practical skills during an outpatient appointment

LIST OF SIMULATION EQUIPMENT USED

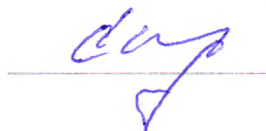
1. Dentist's study area (table, chair).
2. Dental unit with the lamp and spittoon.
3. Instrument table with the fixed rigid container for class B waste.
4. Dentist's chair (for the doctor).
5. The trolley with consumables and containers for disposal.
6. Sink.
7. Container for collecting class A waste with the capacity of 10 liters.
8. Container for collecting class B waste, with the capacity of 10 liters.
9. A set of instruments in imitation of a sterile packaging (tray - 1 pc., dental tweezers - 2 pcs., dental mirror - 1 pc., dental probe - 1 pc., excavator - 1 pc., spatula - 1 pc., trowel - 1 pc., angular probe - 1 pc.
10. A set of cutting instruments for preparing teeth using a turbine tip.
11. Paper palette for mixing the second layer of silicone mass.
12. Rubber flask for mixing impression materials.
13. Spatula for mixing impression materials.
14. Dental spatula.
15. Impression trays for the upper and lower jaw.
16. Scalpel.
17. Retraction cord.
18. Silicone impression material.
19. Alginate impression material.
20. Plaster.

PROTOCOL OF CURRICULUM APPROVAL

Name of the academic discipline that requires approval	Name of the department	Proposals for changes in the content of the educational institution curriculum for the academic discipline	The decision taken by the department that developed the curriculum (indicating the date and protocol number)
1. Maxillofacial surgery and outpatient surgery of the maxillofacial region	Maxillofacial surgery and facial plastic surgery with a course for advanced training and retraining	There are no proposals	Protocol # 11 of 09.04.2025
2. Complex periodontology	Periodontology	There are no proposals	Protocol # 11 of 09.04.2025

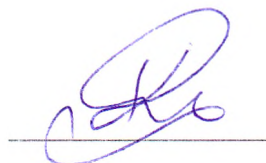
COMPILERS/AUTHORS:

Professor of the Department of
Prosthetic Dentistry and Orthodontics
of the Educational Institution
«Belarusian State Medical University»,
DSc, Professor



S.V.Ivashenko

Head of the Department of Prosthetic
Dentistry and Orthodontics of the
Educational Institution «Belarusian
State Medical University», PhD,
Associate Professor



Ya.I.Timchuk

Associate Professor of the Department
of Prosthetic Dentistry and
Orthodontics of the Educational
Institution «Belarusian State Medical
University», PhD, Associate Professor



A.I.Golovko

Curriculum content, composition and the accompanying documents comply with the established requirements.

Head of the Office of Educational
Activities of the educational institution
«Belarusian State Medical University»

24.06.2025



I.L.Kotovich

Methodologist of the Educational and
Methodological Department of the
Office of Educational Activities of the
educational institution «Belarusian
State Medical University»

24.06.2025



S.V.Zaturanova