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
30.09.2026
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Контрольный экземпляр

CONTEMPORARY ASPECTS OF DIAGNOSIS AND TREATMENT IN MAXILLOFACIAL SURGERY

Curriculum of the educational institution in the additional course for the specialty

7-07-0911-03 «Dentistry»

2026

Curriculum of the additional course is based on the educational program «Современные аспекты диагностики и лечения в челюстно-лицевой хирургии», approved 30.09.2026, registration # УД-03-135/2627/ф.

COMPILERS:

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U.V.Kanchak , Assistant Professor of the Department of Maxillofacial Surgery and Facial Plastic Surgery with Advanced Training and Retraining Course of the educational institution «Belarusian State Medical University»

RECOMMENDED FOR APPROVAL:
Department of Maxillofacial Surgery and Facial Plastic Surgery with Advanced Training and Retraining Course of the educational institution «Belarusian State Medical University»
(protocol No. 12 dated 29.04.2026);

by the Methodological Commission of Dental Disciplines of the Educational Institution «Belarusian State Medical University»
(protocol No. 1 dated 30.09.2026)

EXPLANATORY NOTE

«Contemporary aspects of diagnostics and treatment in maxillofacial surgery» is the additional course *that* involves studying the possibilities of improving the quality of diagnostics and treatment of surgical pathology of the maxillofacial region using modern high-precision methods.

The aim of the additional course «Contemporary aspects of diagnostics and treatment in maxillofacial surgery» is to develop the competencies necessary for the formation and acquisition of scientific knowled ge by students about modern high-precision diagnostic methods: cone beam computed tomography (CBCT), multislice computed tomography (MSCT), magnetic resonance computed tomography (MRI), as well as modern methods of surgical treatment of pathology of the maxillofacial region.

The objectives of the optional course «Contemporary aspects of diagnostics and treatment in maxillofacial surgery» are to develop students' scientific knowledge about the basic concepts used in maxillofacial surgery and surgical dentistry, the causes and mechanisms of development of typical nosological groups of diseases in the maxillofacial region, the most important manifestations of typical pathological processes and risk factors for the development of surgical pathology of the maxillofacial region, preventive focus in the work of a dentist, the skills and abilities necessary for the formation clinical thinking, application of diagnostic methods, implementation of surgical treatment of patients with surgical pathology of the maxillofacial region, compliance with the standards of medical ethics and deontology .

Relations to other academic disciplines

Teaching and successful study of the additional course «Contemporary aspects of diagnostics and treatment in maxillofacial surgery» is carried out on the basis of the student's acquired knowledge and skills in the sections of the following disciplines: «Maxillofacial surgery and outpatient surgery of the maxillofacial region», «Pediatric maxillofacial surgery».

As a result of studying the additional course «Contemporary aspects of diagnostics and treatment in maxillofacial surgery» the student should

know:

norms and rules of conduct for a dental surgeon when receiving patients with surgical diseases of the maxillofacial region;

clinical manifestations of surgical diseases of the maxillofacial region;

complications arising from surgical diseases of the maxillofacial region;

the procedure for conducting a medical examination of patients with surgical diseases of the maxillofacial region;

modern methods of clinical, additional, and special diagnostics of surgical diseases of the maxillofacial region;

modern principles of surgical treatment in maxillofacial surgery and surgical dentistry;

organization of the activities of hospital and outpatient healthcare organizations in providing medical care to patients with surgical diseases of the maxillofacial region;

fundamentals of epidemiological safety in organizing treatment of patients with surgical diseases of the maxillofacial region;

clinical protocols establishing requirements for the volume of medical care provided to patients with surgical diseases of the maxillofacial region;

indications and contraindications for the use of drugs in surgical diseases of the maxillofacial region;

indications and contraindications for the use of antibiotic therapy for diseases of the oral mucosa;

be able to:

establish rapport with the patient;

conduct a medical examination of the patient aimed at assessing the patient's health status and identifying surgical diseases of the maxillofacial region;

carry out the necessary diagnostics in order to identify surgical diseases of the maxillofacial region;

to carry out the necessary treatment of patients with diseases of the oral mucosa and maxillofacial region;

determine indications for additional diagnostic methods;

interpret the results of the obtained studies;

formulate a clinical diagnosis;

provide emergency medical care in conditions that pose a threat to the patient's life or in conditions that require urgent medical intervention;

use medications for surgical diseases of the maxillofacial region, including antibacterial ones;

prepare medical documents, including electronic ones;

master:

methods of providing medical care to patients with surgical diseases of the maxillofacial region.

Total number 40 academic hours are allocated for studying the additional course, including 21 classroom hours and 19 hours of independent student work. Classroom hours are distributed among the various classes: 21 hours of practical classes.

The form of education is full-time .

Interim assessment is carried out in accordance with the curriculum for the specialty in the form of a test (10th semester).

THEMATIC PLAN

Section (topic) title	Number of hours of classroom instruction
	practical
1. Neoplasms of the maxillofacial region	7
2. Traumatic injuries of the maxillofacial region	7
3. Outpatient oral surgery	7
4. Dental implantation. Surgical preparation of the oral cavity for prosthetic and orthodontic treatment	
Total hours	**21**

CONTENTS OF THE STUDY MATERIAL

1. Neoplasms of the maxillofacial region

Precancerous Skin Diseases of the Maxillofacial Region. Modern Approaches to the Diagnosis and Treatment of Precancerous Diseases of the Oral Mucosa

Factors contributing to the development of precancerous skin diseases of the maxillofacial region. Classification, clinical presentation, diagnosis, differential diagnosis, and treatment of precancerous skin diseases of the maxillofacial region. Surgical treatment of precancerous skin diseases of the maxillofacial region: indications, contraindications, techniques, optimal timing of surgery, possible complications, and postoperative patient management.

Factors contributing to the development of precancerous diseases of the oral mucosa. Classification, clinical presentation, diagnosis, differential diagnosis, and treatment of precancerous diseases of the oral mucosa. Surgical treatment of precancerous diseases of the oral mucosa: indications, contraindications, techniques, optimal timing of surgery, possible complications, and postoperative patient management.

Jaw cysts. Differential diagnosis

Etiology, pathogenesis of non-odontogenic and odontogenic cysts of the jaws.

Clinical presentation of jaw cysts. Differential diagnosis of jaw cysts from cystic tumors. Interpretation of imaging data. Preoperative preparation of patients with non-odontogenic and odontogenic jaw cysts. Surgical treatment of jaw cysts: indications, techniques, optimal timing of surgery, potential complications, and postoperative patient management.

Modern treatment options for maxillofacial tumors. Medical rehabilitation of patients with maxillofacial tumors.

Modern methods of radical, palliative, and symptomatic treatment of malignant tumors. Indications and contraindications for combined, comprehensive, and combined treatment of malignant tumors of the maxillofacial region. Principles and methods of radiation therapy, surgery, and chemotherapy (adjuvant and neoadjuvant chemotherapy). Clinical protocols for the treatment of malignant tumors.

Medical rehabilitation for patients with maxillofacial tumors. Follow-up groups for patients. Dental care for cancer patients before, during, and after radiation therapy and/or chemotherapy, as well as surgery.

Features of providing orthopedic care to patients with tumors, features of manufacturing prostheses.

2. Traumatic injuries of the maxillofacial region

Multiple and combined trauma of the maxillofacial region.

Modern methods and principles of surgical treatment of facial bone fractures

Classification of maxillofacial injuries. Developmental characteristics of multiple and combined injuries. Treatment and diagnostic strategies for combined and multiple injuries involving the maxillofacial region. Diagnosis of occult cerebrospinal fluid leakage

. Provision of primary and specialized medical care in collaboration with other specialists for combined and multiple injuries.

Optimal timing of surgical treatment of maxillofacial injuries.

Classification of facial bone fractures and deformities. Assessment of anthropometric data, surgical planning.

Facial bone surgeries. Surgeries for traumatic injuries and malunions of the mandible and maxilla, zygomatic bone and arch, and orbital bone fractures: indications, procedures, optimal surgical timing, potential complications, and postoperative patient management.

Bone grafting in maxillofacial surgery

Types of bone grafts. Donor site selection for harvesting split- graft cortical bone grafts . Auto- and allografting of bone structures in maxillofacial surgery.

Indications for surgical treatment, methods of implementation, optimal timing of surgical treatment, possible complications, postoperative patient management.

3. Outpatient oral surgery

Odontogenic sinusitis of the maxillary sinuses. Local plastic surgery in the oral cavity.

Etiology, pathogenesis, classification, clinical presentation, diagnosis, and differential diagnosis of odontogenic sinusitis of the maxillary sinus. Treatment of patients with odontogenic sinusitis in outpatient and inpatient settings. Prevention of odontogenic sinusitis. Dental care for chronic and acute odontogenic sinusitis.

Planning local plastic surgery in the oral cavity. Identifying patients requiring local plastic surgery in the oral cavity. Preoperative preparation of patients, selection of surgical treatment method. Operations on the alveolar process mucosa (frenulotomy , labial and lingual frenuloplasty, vestibuloplasty , closure of isolated gingival recessions); alveolar mucosa and alveolar bone tissue (Widman flap operations ; Neumann flap operations ; modified Kirkland , Ramfiord , Nissle flap operations, apical flap advancement operations): indications, surgical techniques, postoperative patient management.

4. Dental implantation. Surgical preparation of the oral cavity for orthopedic and orthodontic treatment.

Types of modern dental implants. Indications and contraindications for dental implantation and choosing the right implant type.

Patient examination and evaluation of CBCT studies to determine the volume of bone structures.

To study the specifics of dental implant placement depending on their location on the jaws and the presence of different volumes of bone structures.

Study of errors in the technical support and implementation of single-stage and two-stage dental implantation techniques. Early and late complications of dental implantation. Drug treatment for the development of inflammatory complications during dental implantation.

Comprehensive drug correction of pain syndrome and sensitivity disorders in the innervation zone of the trigeminal nerve branches.

Alveoloplasty , osteophyte removal, palatal torus removal, and alveolar ridge augmentation. Examination and planning of comprehensive orthodontic surgical

treatment. Indications and techniques for performing surgical procedures prior to orthodontic treatment.

Developing a surgical treatment plan for a patient with periodontal disease. Identifying clinical manifestations, diagnosis, and comprehensive treatment for patients with periodontal disease.

Preoperative patient preparation and selection of surgical treatment method. Surgeries within the free and attached gingiva (curettage (open/closed), gingivotomy , gingivectomy (simple, radical)); alveolar mucosa and alveolar bone: indications, surgical techniques, and postoperative patient management.

EDUCATIONAL AND METHODOLOGICAL CARD OF THE EDDITIONAL COURSE " CONTEMPORARY ASPECTS OF DIAGNOSIS AND TREATMENT IN MAXILLOFACIAL SURGERY"

Section number, topic	Section title, topic	Number of classroom hours	Independent work of a student	Forms of knowledge control
		practical		
1.	Neoplasms of the maxillofacial region	7	5	Survey, solving situational problems
2.	Traumatic injuries of the maxillofacial region	7	4	Survey, solving situational problems
3.	Outpatient oral surgery	7	4	Survey, solving situational problems
4.	Dental implantation. Surgical preparation of the oral cavity for orthodontic treatment		6	Survey, solving situational problems, credit
	Total	**21**	**19**	

INFORMATION AND METHODOLOGICAL PART

LITERATURE

Basic:

1. Oral and maxillofacial surgery : textbook/ Ed. by prof. V. Malanchuk/ part. 1. – 2nd ed., 2018. – 440 p.;
2. Oral and maxillofacial surgery : textbook/ Ed. by prof. V. Malanchuk/ part. 2., – 2nd ed., 2018. – 440 p.

Additional:

3. Basic Guide to Oral and Maxillofacial Surgery / Nicola Rogers, Cinzia Pickett. – 1st edition. - Wiley-Blackwell, 2017. – 160 p.;
4. Clinician's Handbook of Oral and Maxillofacial Surgery / Daniel M. Laskin, Eric R. Carlson. – 2nd edition. - Quintessence Pub Co, 2018. – 624 p.;
5. Contemporary Oral and Maxillofacial Surgery/ James R. Hupp DMD MD JD MBA, Myron R. Tucker DDS, Edward Ellis III DDS MS. – 7th edition. – Mosby, 2018. – 721 p.
6. Minimally Invasive Oral and Maxillofacial Surgery / Oded Nahlieli. - 1st Edition. – Springer, 2018. – 203 p.
7. New Insights into Oral and Maxillofacial Surgery / Gideon Schmidt. - HAYLE MEDICAL, 2019. – 209 p.
8. Operative Oral and Maxillofacial Surgery / John D. Langdon, Mohan F. Patel, Robert Ord, Peter A. Brennan. – 3rd edition. - CRC Press, 2017. – 951 p.
9. Perioperative Assessment of the Maxillofacial Surgery Patient: Problem-based Patient Management / Ferneini Elie M., Bennett Jeffrey D. (eds.). - Springer, 2018. — 702 p.
10. Боярина, И. А. Dislocations and fractures of teeth : учебно-методическое пособие / И. А. Боярина, А. И. Николаева-Киселевич. – Минск : БГМУ, 2019. – 12 с.;
11. Гурбанов, Т. Pre-prosthetic jaw bone surgery : учебно-методическое пособие / Т. Гурбанов.– Минск : БГМУ, 2021. – 24 с.;

Regulatory legal acts:

12. Clinical protocol "Diagnosis and treatment of patients (adult population) with neurogenic diseases of the maxillofacial region": Resolution of the Ministry of Health of the Republic of Belarus No. 66 of 02.05.2023.
13. Clinical protocol "Diagnosis and treatment of patients (adult population) with diseases of the veins, lymphatic vessels and lymph nodes of the maxillofacial region": Resolution of the Ministry of Health of the Republic of Belarus No. 66 dated 02.05.2023.
14. Clinical protocol "Diagnosis and treatment of patients (adult population) with odontogenic maxillary sinusitis": Resolution of the Ministry of Health of the Republic of Belarus No. 66 of 02.05.2023.

LIST OF TOOLS USED TO DIAGNOSE THE RESULTS OF EDUCATIONAL ACTIVITIES

For competence diagnostics The following forms of current certification are used:

test;
control survey;
electronic test;
solving situational problems.

USED METHODS TRAINING

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

LIST OF PRACTICAL SKILLS

Name of the practical skill	Practical skill assessment form
Conducting clinical research methods	Performing practical skills at the dental chair or at the patient's bedside
Application of simple interrupted suture, U- shaped suture, continuous U-shaped suture, intradermal suture on artificial skin	Performing practical skills on simulation equipment
Preparation of medical documents, including electronic ones	Solving a situational problem

COMPILERS:

Head of the Department of Maxillofacial Surgery and Facial Plastic Surgery with Advanced Training and Retraining Course of the educational institution «Belarusian State Medical University», Ph.D., associate professor — D.A.Hrychaniuk

Assistant Professor of the Department of Department of Maxillofacial Surgery and Facial Plastic Surgery with Advanced Training and Retraining Course of the educational institution «Belarusian State Medical University» — U.V.Kanchak

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» — I.L.Kotovich

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Methodologist of the Educational and Methodological Department of the Office of Educational Activities of the Educational Institution «Belarusian State Medical University» — N.A.Kukashinova

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