



EDUCATIONAL DISCIPLINE SYLLABUS

SURGICAL DENTISTRY

Specialty: **221 «Dentistry»**

Educational and Professional Program: **Dentistry**

Component Code in the Educational Program: **OK 29**

Higher education level: **Second (Master's)**

Form of the Educational Component: **full-time (daytime)**

Year of study: **3**

Semester(s): **V (autumn), VI (spring)**

Type of Educational Component: **compulsory**

Academic Year: **2026–2027**

Volume: **5.5 ECTS credits (165 hours)**

Training sessions: **lectures, practical classes, consultations**

Final control: **pass/fail credit**

Prerequisites: **anatomy and morphology, pathological anatomy, radiological diagnostics, surgical dentistry and maxillofacial surgery**

Department / Unit: **the Department of Surgical Dentistry and Maxillofacial Surgery, Peremohy Ave., 51, 6 Floor**

Head of the Educational Component:

doctor of medicine, professor Grigorov Serhiy Mykolayovych,

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Educational Component Page in the Distance Learning System KhNMU (Moodle):

<https://distance.knu.edu.ua/course/index.php?categoryid=309>

DESCRIPTION OF THE EDUCATIONAL COMPONENT

Operative Dentistry studies methods of patient examination, diagnosis of surgical dental diseases, their treatment, and prevention in the surgical dentistry clinic.

PURPOSE OF THE COURSE: Students will learn to conduct examinations, diagnose, and treat patients with surgical pathology of the maxillofacial region (MFR) tissues.

LEARNING OUTCOMES:

- ability to demonstrate the basic methods of examining a patient in the surgical dentistry clinic.
- planning the examination of a patient with diseases of the maxillofacial region;
- ability to determine the final clinical diagnosis through analysis of the obtained subjective and objective data from clinical and additional examinations;
- ability to perform differential diagnosis of diseases of the maxillofacial region;
- acquisition and improvement of practical skills in the treatment of patients with surgical pathology of the tissues of the maxillofacial region according to existing algorithms and standard treatment protocols;
- development of professional abilities and skills for making independent decisions in choosing treatment methods based on a preliminary and/or final clinical diagnosis in the surgical dentistry clinic;
- ability to identify various clinical variants and complications of the most common diseases encountered in surgical dentistry practice;
- ability to complete the main medical documentation related to dental appointments;
- development of adherence to moral and deontological principles of the medical profession and the principles of professional subordination in the surgical dentistry clinic;
- ability to carry out prevention of dental diseases among the population in order to prevent the spread of dental diseases;

- knowledge of the clinical manifestations of major emergency conditions and the algorithm for providing emergency medical care using standard protocols.

CONTENT OF THE EDUCATIONAL COMPONENT

List of Lecture Topics (20 hours):

1. The subject and tasks of surgical stomatology. The history of development, the contribution of domestic scientists to the development of certain problems of the discipline. Organization of surgical dental care in Ukraine. General anesthesia in surgical dentistry in polyclinic and hospital conditions. Types, methods and features of general anesthesia: complications, their prevention and treatment.
2. Premedication. Characteristics of medicinal preparations used for the purpose of premedication, their doses, concentrations. Schemes of premedication in polyclinic and hospital conditions. Local anesthesia in surgical dentistry. Anesthetic drugs, their properties. Types and methods of analgesia. Choosing a method of analgesia when removing different groups of teeth. Complications of local anesthesia, their prevention and treatment.
3. Tooth extraction surgery: indications and contraindications, operation technique, features of removing individual groups of teeth. Healing of the hole after surgery. Complications during tooth removal surgery, their diagnosis, prevention and treatment. Atypical tooth extraction.
4. Surgical treatment of chronic periodontitis. Teething diseases, pericoronitis. Surgical interventions on alveolar processes. Classification of inflammatory processes of the maxillofacial area. Etiology and pathogenesis. Ways of spread of the infectious process. Acute periodontitis, periostitis, their prevention and treatment.
5. Acute osteomyelitis of the jaws: classification, etiology and pathogenesis, modern views on the theories of pathogenesis. Pathological and anatomical changes in tissues. Peculiarities of the course of the process depending on the jaw. Clinic, diagnostics, prophylaxis and treatment. Chronic odontogenic osteomyelitis of the jaws: classification, patho-anatomical changes at different stages of the development of the process. Clinic, diagnostics, treatment. Possible complications, their causes, diagnosis, prevention and treatment.
6. General characteristics of abscesses and phlegmon. Etiology, pathogenesis, morphological structure. Classification, symptoms and signs, diagnosis, methods medical and surgical treatment. Phlegmon of the orbit, causes, clinic, diagnosis, treatment.
7. Abscesses and phlegmons of soft tissues adjacent to the upper jaw : etiology, pathogenesis, symptoms and signs, pathways for the spread of infection to neighboring anatomical spaces, differential diagnostics, medical and surgical treatment and preventive measures. Abscesses and phlegmons of the soft tissues spaces adjacent to the lower jaw: etiology, pathogenesis, symptoms and signs, pathways for the spread of infection to neighboring anatomical spaces, differential diagnostics, medical and surgical treatment and preventive measures.
8. Abscesses and phlegmons of root of the tongue and floor of the mouth, neck. Etiology, pathogenesis, symptoms and signs, diagnostics, medical and surgical treatment, complications and preventive measures. Odontogenic lymphadenitis and adenophlegmons: etiology, pathogenesis, classification, symptoms and signs, differential diagnostics, medical and surgical treatment and preventive measures.
9. Inflammatory and dystrophic diseases of the salivary glands: etiology, pathogenesis, classification, symptoms and signs, diagnostics, medical and surgical treatment, preventive measures. Sialolithiasis (diseases associated with the stones in the salivary glands): etiology, pathogenesis, classification, symptoms and signs, diagnostics, medical and surgical treatment, complications and preventive measures.
10. Specific inflammatory processes of the maxillofacial area (actinomycosis, tuberculosis, syphilis): etiology, pathogenesis, classification, symptoms and signs, diagnostics, treatment, complications, preventive measures. Nonodontogenic inflammatory processes of the

maxillofacial area: furuncle, carbuncle, noma, erysipelas (etiology, pathogenesis, classification, symptoms and signs, diagnostics, complications, medical and surgical treatment, preventive measures). Complications of inflammatory diseases of the maxillofacial area: sepsis, mediastinitis, meningitis, thrombophlebitis, thrombosis of the facial vein and cavernous sinus, abscesses of the brain. Intensive therapy of purulent inflammatory processes of the maxillofacial area.

List of Practical Session Topics (100 hours):

1. Organization of the surgical room of the dental polyclinic and the maxillofacial surgery department of the hospital. Medical documentation of the surgical maxillofacial office. Asepsis and antiseptics, classification and characteristics of these methods in surgical stomatology. Groups of antiseptics, their characteristics. Antiseptic drugs that are more often used in surgical stomatology, their doses, concentrations, prescriptions.
2. General anesthesia during operations on the face and in the oral cavity: classification of methods, indications and contraindications, features of application in the maxillofacial region. Premedication. Characteristics of drugs used for premedication, their dosage, prescription concentration. Schemes of premedication in the conditions of a dental polyclinic and hospital. Local anesthesia. Types of local anesthesia, classification. Drugs for local anesthesia, their physical, chemical and pharmacodynamic properties, doses, concentrations, prescriptions. Potential local anesthesia.
3. Surgical anatomy of the second branch of trigeminal nerve. Methods of local anesthesia during operations on the upper jaw.
4. Technique of local anesthesia on the upper jaw. The choice of method for the extraction of different groups of teeth on the upper jaw. Demonstration of anesthesia methods on the upper jaw.
5. Surgical anatomy of the third branch of trigeminal nerve. Methods of local anesthesia during operations on the lower jaw.
6. Methods of local anesthesia during operations on the lower jaw. The choice of method for the extraction of different groups of teeth on the lower jaw. Demonstration of anesthesia methods on the lower jaw. Local and general complications of local anesthesia. Clinic, diagnostics, treatment.
7. Tooth extraction operation: indications, contraindications, stages of tooth extraction. Tools for removing teeth on the upper and lower jaws. Technique of tooth extraction operations of the lower and upper jaw. Differences in removal of the frontal group, premolars and molars on the upper and lower jaws. Healing of the alveolus after tooth extraction (clinical-experimental studies by A.E. Verlotskyi). Demonstration of tooth extraction operation. Examination of a surgical dental patient. General and local complications during and after tooth extraction.
8. Tooth transplant operations: replantation, transplantation. Implantation. Teething diseases. Dystopia, retention. Etiology, pathogenesis, clinic, diagnosis, treatment. Pericoronitis, etiology, pathology, clinic, diagnosis, treatment. Acute periodontitis. Etiology, pathogenesis, classification, clinic, diagnosis, treatment (surgical). Chronic periodontitis. Classification, clinic, diagnosis, surgical methods of treatment. Resection of the apex of the root. Hemisection of a tooth.
9. Acute odontogenic periostitis of the jaws. Classification, pathogenesis, clinic, diagnosis, treatment. Acute odontogenic osteomyelitis of the jaws: classification, theories of pathogenesis, pathoanatomical changes in tissues, clinic, diagnosis, treatment and prevention of the disease. Chronic odontogenic osteomyelitis of the jaws: causes, pathology, stages of development of the process, clinic, diagnosis, treatment and prevention of the disease.
10. General characteristics of abscesses and phlegmon. Classification, etiology, pathogenesis, morphological constitution, symptoms and signs, diagnostics, methods of treatment.

11. Abscesses and phlegmons of the soft tissues spaces adjoining to the upper jaw: etiology, pathogenesis, symptoms and signs, differential diagnostics, medical treatment, and preventive measures. Possible paths of distribution of infection.
12. Abscesses and phlegmons of the soft tissues spaces adjoining to the lower jaw: etiology, pathogenesis, symptoms and signs, differential diagnostics, medical treatment, and preventive measures.
13. Profound phlegmon maxillofacial area.
Phlegmons of peripharyngeal and pterygopalatine -maxilla space
14. Abscesses and phlegmons of the tongue root, and floor of mouth, neck. Necrotic phlegmon of the maxillofacial area: etiology, pathogenesis, symptoms and signs, differential diagnostics, medical treatment, complications, and preventive measures.
15. Odontogenic lymphadenitis and adenophlegmons: etiology, pathogenesis, symptoms and signs, differential diagnostics, medical treatment, and preventive measures.
16. Odontogenic sinusitis, causes, pathogenesis, clinic, diagnostics, treatment complication, prognosis.
17. Specific inflammatory processes of the maxillofacial area (actinomycosis, tuberculosis, syphilis): etiology, pathogenesis, classification, symptoms and signs, diagnostics, medical treatment, complications, and preventive measures. Actinomycosis maxillofacial area. Classification, clinic, diagnostics, treatment, complication, preventive.
18. Nonodontogenic inflammatory processes of the maxillofacial area: furuncle, carbuncle, noma, and erysipelas (etiology, pathogenesis, classification, symptoms and signs, diagnostics, medical treatment, complications, and preventive measures). Surgical anatomy of the salivary glands. Methods of diagnostics.
19. Inflammatory and dystrophy diseases of the salivary glands: etiology, pathogenesis, classification, symptoms and signs, diagnostics, medical treatment, and preventive measures.
20. Diseases associated with the stones in the salivary glands: etiology, pathogenesis, classification, symptoms and signs, diagnostics, medical treatment, complications, and preventive measures.
21. Complications of inflammatory diseases of the maxillofacial area: sepsis, mediastinitis, meningitis, thrombophlebitis, thrombosis of the facial veins and cavernous sinus, and abscesses of the brain. Intensive therapy of festering inflammatory processes of the maxillofacial area.

List of Student Independent Work Topics (45 hours):

1. Organization of the Surgical Dentistry Cabinet in Modern Conditions.
2. Modern Methods of Hand Disinfection for Surgeons in Outpatient and Inpatient Settings.
3. General Complications of Local Anesthesia.
4. Allergic and Toxic Reactions During Local Anesthesia.
5. Pharmacological Principles of Treating Inflammatory Processes in the Maxillofacial Region (MFR).
6. Pathophysiological Features of the Clinical Course of Inflammatory Processes in the Maxillofacial Region (MFR).
7. Radiodiagnosis of Dental Diseases.
8. Physiotherapeutic Methods of Treating Dental Diseases.
9. Deontology in Dentistry.
10. Manifestations of Lymphadenitis in the Maxillofacial Region (MFR) in Specific Diseases: Tuberculosis, Actinomycosis, Syphilis, AIDS.
11. General and Local Anesthesia in the Maxillofacial Region (MFR): Features of Implementation, Complications, and Methods of Their Elimination.
12. Emergency Conditions and Principles of Providing Aid.
13. Topographic Anatomy of the Maxillofacial Region (MFR).
14. Basic Principles of Conducting Incisions in the Maxillofacial Region (MFR).

Independent Study Work (ISR) is aimed at deepening and consolidating the theoretical knowledge acquired during classroom learning and contributes to the development of professional competencies. The results of ISR are subject to control and are included in the final assessment of knowledge.

Consultations: Online, by prior registration on the course page in the Distance Learning System.

Teaching Methods: Lecture, performing exercises and practical tasks, solving situational problems and case studies, and the standardized patient method.

EVALUATION

Current Learning Activities (CLA). Student performance is assessed in accordance with the Instructions for Evaluating the Academic Activities of Higher Education Students at KhNMU (<https://knmu.edu.ua/documents/normatyvni-dokumenty-navchalnogo-proczesu/>). The grade for a practical or final session ranges from 2 to 5 points. Submitting assignments late without a valid reason results in a grade reduction proportional to the delay time relative to the assignment deadline. Assignments are checked within 24 hours. Grades are recorded in the electronic gradebook. Unsatisfactory grades must be remedied in accordance with the Regulations on the Procedure for Students to Make Up Unsatisfactory Work KhNMU Classes / Educational Sessions (https://knmu.edu.ua/wp-content/uploads/2021/05/polog_vidprac_zaniat.pdf).

Current Learning activity (CLA) is considered completed if the student has made up all missed classroom sessions and lectures during the current semester, and the average grade for all topics is 3 points or higher. In this case, the record is marked as “**completed**”, and the average grade is indicated on the 4-point scale. If the student has unmade missed classroom sessions or lectures, or the average grade is below 3 points, the record is marked as “**not completed.**”

Appealing the results of the final control is conducted in accordance with the procedure established by the KhNMU (https://knmu.edu.ua/wp-content/uploads/2021/05/polog_apel_kontrol.pdf).

POLICIES OF THE EDUCATIONAL COMPONENT

Recommendations for working on the course: Actively participate in all forms of class activities, dedicate 1–2 hours daily to independent work and preparation for classes, ask questions during sessions, attend consultations, submit assignments on time, and complete all forms of assessment.

Attending classes. Attendance at lectures and practical classes is mandatory. The required attire for in-person sessions is a white medical coat. If you are more than 5 minutes late, you may be denied entry to the class. Missed sessions must be made up in accordance with the Regulations on the Procedure for Students to Make Up Missed Educational Sessions at the educational institution KhNMU (https://knmu.edu.ua/wp-content/uploads/2021/05/polog_vidprac_zaniat.pdf).

Academic Integrity. The KhNMU maintains a zero-tolerance policy toward any forms of academic dishonesty. Any violations of the principles of academic integrity entail responsibility in accordance with the procedure established by the KhNMU (https://knmu.edu.ua/wp-content/uploads/2021/05/polog_ad-1.pdf).

Use of Electronic Devices and Artificial Intelligence Tools Allowed only with the Teacher’s permission.

Policy on Students with Special Educational Needs. Students with special educational needs should contact the instructor to develop an individual educational plan.

Teacher Response Time: 24 hours.

Technical Requirements for the Course:

- Access to a computer, laptop, tablet, or smartphone
- Corporate Google account with a personal photo
- Skills in using Google Workspace (Google Meet, Docs, Sheets, Slides, Forms) ra Moodle

Technical Support: LMS (Learning Management System) (ev.shevtsov@knmu.edu.ua), Google (tehotdelknmu@gmail.com), Moodle (al.korol@knmu.edu.ua)

RECOMMENDED RESOURCES

1. Oral and Maxillofacial Surgery. Pt. 1 / ed. V. Malanchuk. - 2nd ed., updated. - Vinnytsya : Nova Knyha Publ. - 440 p.- 2018.



2. Oral and Maxillofacial Surgery. Pt. 2 / ed. V. Malanchuk. - 2nd ed., updated. - Vinnytsya : Nova Knyha Publ. - 296 p. – 2018.
3. Oral and Maxillofacial Surgery. Edited by Lars Andersson DDS, PhD, Karl-Erik Kahnberg DDS, M. Anthony (Tony) Pogrel DDS. / © 2010 Blackwell Publishing Ltd
4. Oral and maxillofacial surgery diseases. Edited by Crispian Scully, Stephen R Flint, Jose V Bagan, Stephen R Porter and Khursheed F Moos. / © 2010 Informa UK Ltd, except as otherwise indicated.
5. PETERSON'S PRINCIPLES OF ORAL AND MAXILLOFACIAL SURGERY Second Edition. Michael Miloro - Editor G. E. Ghali • Peter E. Larsen • Peter D. Waite - Associate Editors. / 2004 BC Decker Inc Hamilton • London.

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of Surgical Dentistry and
Maxillofacial Surgery

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