


**PRIVATE HIGHER EDUCATIONAL INSTITUTION  
"INTERNATIONAL ACADEMY OF ECOLOGY AND MEDICINE"  
Department of Dentistry**

**"APPROVED"**

Acting Head of the Department  
 Oleksandr BIDA

**WORKING PROGRAM OF EDUCATIONAL DISCIPLINE**

**" Therapeutic dentistry "**

**LEVEL OF HIGHER EDUCATION** Second (master's) level  
**DEGREE OF HIGHER EDUCATION** Master's degree  
**BRANCH OF KNOWLEDGE** 22 Healthcare  
**SPECIALTY** 221 Dentistry  
**COURSE** 3

Reviewed and approved  
at the meeting of the Department of Dentistry  
Protocol No. 1 of "31". 08. 2022

**Kyiv 2022**

Working program of educational discipline " Therapeutic dentistry " for the preparation of students of higher education of the second (master's) level of higher education in the specialty 221 Dentistry.

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Approved by the Central Methodical Council of the Academy Protocol No. 1 of 31.08 2022

Agreed

First Vice-Rector



Oleksandra SOROKA

## INTRODUCTION

**The working study program was compiled in accordance with the following normative documents :** the Law of Ukraine "On Higher Education" dated 07.1.2014 No. 1556-VII; by the order of the Ministry of Education and Culture of Ukraine of June 24, 2019 No. 879 "On approval of the standard of higher education in specialty 221 "Dentistry" for the second (master's) level of higher education"; the educational and professional program (OPP) of specialist training in specialty 221 "Dentistry" for the second (master's) level of higher education; educational program of the educational discipline " Therapeutic dentistry ".

### **Description of the academic discipline (abstract)**

Therapeutic dentistry is a discipline whose methods are aimed at preserving the health of teeth, organs and tissues of the oral cavity, restoring their anatomical form and physiological function, and preventing dental diseases by therapeutic methods. In accordance with the sample curriculum of the undergraduate training of specialists of the second (master's) level of higher education in the specialty 221 "Dentistry", study of the academic discipline " Therapeutic dentistry " is carried out by students in the 3rd , 4th and 5th years of study in V - X semesters

**The subject** of study of the educational discipline is the question of etiology, pathogenesis, clinical manifestations of diseases of the teeth, periodontium and mucous membrane of the oral cavity, methods of their treatment, as well as national and individual preventive measures to prevent the most common diseases such as caries and its complications, periodontal disease.

**Interdisciplinary connections** : the study of "Therapeutic Dentistry" is based on the knowledge previously acquired by students in human anatomy, histology, cytology and embryology, pathological anatomy, biological chemistry, microbiology, virology and immunology, clinical pharmacology, pathomorphology, pathophysiology, internal medicine, dermatology, venereology, social medicine and propaedeutics of therapeutic dentistry and integrates with these disciplines.

### **1. The purpose and tasks of the educational discipline**

**1.1. The goal of** teaching the academic discipline "Therapeutic Dentistry" is to train a dentist who is able to diagnose, prevent and treat diseases of the teeth, periodontium and the mucous membrane of the oral cavity.

**1.2. The main tasks** of study disciplines "Therapeutic dentistry" have the ability to conduct an examination of a dental patient, identify leading syndromes and symptoms, justify and formulate a preliminary diagnosis; analyze the results of the examination of a dental patient and carry out differential diagnosis, formulate the final diagnosis of the main diseases, detect and identify the manifestations of somatic and infectious diseases in the oral cavity, determine the nature and principles of treatment of patients in the clinic of therapeutic dentistry, identify different clinical variants of the course and complications of the most common dental diseases , to carry out their primary and secondary prevention.

**1.3 Competencies and learning outcomes**, the formation of which contributes to the discipline (interrelationship with the normative content of the training of higher education applicants, formulated in terms of learning outcomes in the Standard).

According to the requirements of the "Standard of Higher Education of Ukraine", the discipline "Therapeutic Dentistry" ensures that students acquire the following *competencies* .

**Integral:** the ability to solve complex tasks and problems in the field of health care in the specialty " C tomatology" in the process of education and future professional activity.

**General:**

- 1) ability to abstract thinking, analysis and synthesis; the ability to be modernly trained, constantly learn and deepen one's knowledge based on the achievements of modern medicine and, in particular, dentistry;
- 2) knowledge and understanding of the subject area and understanding of the profession;
- 3) the ability to apply acquired knowledge in practical situations;
- 4) the ability to communicate in the state language both orally and in writing; the ability to communicate in a second language;
- 5) skills in using information and communication technologies;
- 6) the ability to search, process and analyze information from various sources;
- 7) ability to adapt and act in a new situation; ability to work autonomously;
- 8) ability to identify and solve problems;
- 9) the ability to choose a communication strategy;
- 10) ability to work in a team;
- 11) interpersonal skills;
- 12) the ability to act on the basis of ethical considerations (motives);
- 13) skills in performing safe activities;
- 14) the ability to evaluate and ensure the quality of performed works;
- 15) desire to preserve the environment;
- 16) the ability to act socially responsibly and civically.

***Special:***

- 1) collection of medical information about the patient's condition;
- 2) evaluation of the results of laboratory and instrumental research methods;
- 3) establishing a clinical diagnosis of a dental disease;
- 4) diagnosis of emergency conditions;
- 5) planning and carrying out measures for the prevention of dental diseases;
- 6) determination of the nature and principles of treatment of dental diseases;
- 7) determination of the necessary regime of work and rest, diet in the treatment of dental diseases;
- 8) determination of the tactics of managing a dental patient with somatic pathology;
- 9) performing medical and dental manipulations;
- 10) treatment of basic dental diseases;
- 11) organization of medical evacuation measures;
- 12) determination of tactics and provision of emergency medical assistance;
- 13) organization and conduct of dental dispensation of persons subject to dispensary supervision;
- 14) assessment of the impact of the environment on the state of health of the population (individual, family, population);
- 15) maintaining medical documentation;
- 16) processing of state, social and medical information.

**Detailing of competencies in accordance with the NQF descriptors in the form of the "Competence Matrix".**

Matrix of competences

| N<br>o<br>s/p  | Competence   | Knowledge  | Skill   | Communication   | Autonomy and responsibility  |
|--|--|--|---|---|--|
| 1  | 2  | 3  | 4   | 5   | 6  |
| <p><b>Integral competence:</b><br/>the ability to solve complex tasks and problems in the field of health care in the specialty " C stomatology"<br/>in the process of education and professional activity</p> |  |  |   |   |  |
| <p><b>Special competences:</b></p>   |  |  |   |   |  |
| 1.   | Collection of medical information about the patient's condition        | Principles and sequence of examination of a dental patient with odontopathology, periodontal diseases , oral mucosa .  | Assess the general, psychomotor and physical development of the patient, the state of the maxillofacial organs.<br>To analyze the need to prescribe certain methods of examination of a dental patient, their informativeness and significance in the diagnosis of odontopathology, periodontal diseases and the mucous membrane of the oral cavity.<br>Assess the state of the teeth, periodontium, oral mucosa and changes in them.<br>Interpret the results of the main clinical and additional examination methods for various odontological diseases, diseases of the periodontium and the mucous membrane of the oral cavity. | Demonstrate mastery of the moral and deontological principles of a medical specialist and the principles of professional subordination in the clinic of therapeutic dentistry when communicating with the patient, the patient's relatives, and colleagues. | To be responsible for observing the principles of examination of the dental patient                                  |
| 2.   | Evaluation of laboratory and instructional results mental studies (for | Biochemical composition of saliva, oral fluid, their biophysical properties ( pH , remineralizing potential), structural and functional acid resistance of enamel.<br>Indications for conducting and interpretation of results | Evaluate and interpret results biochemical, biophysical, microbiological studies of saliva and oral fluid.<br>Conduct and evaluate the structural and functional acid resistance of enamel, electro-odontology, reo-periodontography, vacuum test, hardware determination of the length of the root canal.  | Be able to reasonably explain changes in the state of the teeth, periodontium, and mucous membrane of the oral cavity, saliva, oral fluid, blood, urine, general  | To be responsible for the correctness and accuracy of assessment of laboratory and instrumental examination methods. |

| 1  | 2  | 3  | 4   | 5   | 6  |
|----|--|--|---|---|--|
|    | list 5 of the Standard)  | functional examination of a dental patient with diseases of the teeth, periodontium, and mucous membrane of the oral cavity. Normal values of basic human constants (clinical, biochemical analysis of blood, urine, etc.) and changes in them during pathological processes in the oral cavity, somatic and infectious diseases. Cytological, microbiological examination of organs and tissues of the oral cavity, oral fluid. | Prescribe according to the indications and evaluate the results of X-ray diagnostics, functional examination, clinical, immunological, biochemical tests of blood, urine, cytological, histological, microbiological studies in various pathological conditions of the teeth, periodontium and mucous membrane of the oral cavity.  | the patient's condition, the patient's relatives, when discussing with colleagues.                                    |  |
| 3. | Establishing a clinical diagnosis of a stomatological disease ( according to list 2.1 of the Standard) | Clinical manifestations (complaints, disease and life history, objective examination results) of various forms of major odontological diseases, periodontal diseases, oral mucosa  | Classify carious and non-carious lesions, endodontic (pulp and periodontal) diseases, periodontal diseases, oral mucosa. Identify and identify leading clinical symptoms and syndromes (according to list 1 of the Standard). According to standard methods, using a logical analysis of previously obtained data of subjective and objective examination , additional methods, carried out differential diagnosis, establish a clinical diagnosis of dental disease. | To be able to substantiate the clinical diagnosis of dental disease for the patient, when discussing with colleagues. | To be responsible for the reliability and accuracy of the formulation of the diagnosis |

| 1  | 2   | 3   | 4  | 5  | 6  |
|----|---|---|--|--|--|
| 4. | Diagnosis of non-urgent conditions and determination of tactics and provision of emergency medical assistance               | Know the clinical manifestations of emergency conditions at a dental therapeutic appointment and under any circumstances (at home, on the street, in a medical institution); tactics, algorithms for providing emergency medical care | Identify and identify leading clinical symptoms of emergency conditions (according to list 4 of the Standard).<br>To perform medical manipulations for the provision of emergency medical aid, using standard schemes under any circumstances and under limited time (according to list 6 of the Standard).  | Analyze the causes of the patient's emergency condition at the dental appointment and under any circumstances  | To be responsible for the timely diagnosis of emergency conditions and the correctness of providing emergency medical care |
| 5. | Planning and implementation of measures for the prevention of stomatological diseases                                       | Schemes of mass and individual prevention of odontological diseases, diseases of the periodontium and mucous membrane of the oral cavity  | Analyze the epidemiological situation in relation to dental morbidity and carry out social, medical and individual, medicinal and non-medicinal prevention measures for dental diseases  | The ability to organize measures for social, medical and individual prevention of dental diseases  | To be responsible for the timeliness and effectiveness of preventive measures regarding dental diseases                    |
| 6. | Determination of the nature and principles of treatment of the main dental diseases (according to list 2.1 of the Standard) | Principles of treatment of various forms of non-carious lesions, caries and its complications, patients with pathological changes of the periodontium, mucous membrane of the oral cavity.  | In accordance with the principles of treatment, draw up curation schemes for patients with major dental diseases (caries and non-carious lesions of the teeth, pulpitis, periodontitis, periodontal and oral mucosa diseases) according to existing algorithms and treatment standards in accordance with the list of dental manipulations (according to list 7 of the Standard) . | To be able to justify the choice of treatment scheme for the main dental diseases for the patient and when discussing with the patient's colleagues and relatives. | Be responsible for treatment regimens for patients with major dental diseases  |

| 1  | 2  | 3   | 4  | 5  | 6  |
|----|--|---|--|--|--|
| 7. | Determination of the necessary regime of work and rest, diet in the treatment of dental diseases | Peculiarities of the regime of work, rest, diet in the treatment of various forms of non-cariou lesions, caries and its complications, patients with pathological changes in the periodontium, oral mucosa.                                 | Provide recommendations on the organization of the work regime, rest, diet in the treatment of various forms of non-cariou lesions, caries and its complications, patients with pathological changes in the periodontium, oral mucosa.   | Complex interaction, if necessary, with internists, relatives of patients with non-cariou lesions, caries and its complications, pathological changes in the periodontium, oral mucosa.                        | To be responsible for the obligation to inform patients and their relatives about the organization of the work regime, rest, and diet in the treatment of basic dental diseases. |
| 8. | Determination of the management tactics of a dental patient with somatic pathology               | Peculiarities of the course and treatment of the main dental diseases with physiological conditions and somatic diseases that require special patient management tactics.<br>Peculiarities of analgesia in patients with somatic pathology. | Assess the patient's condition during pregnancy, diseases of the blood and blood-forming organs, cardiovascular diseases, neuropsychiatric disorders, diseases of the respiratory, digestive, endocrine, skeletal-muscular systems and connective tissue, infectious and parasitic diseases; allergic and immunodeficiency conditions.<br>Make a reasoned decision regarding treatment tactics and implement it in the treatment of patients with pathological changes in the dental status during pregnancy, diseases of the blood and hematopoietic organs, cardiovascular diseases, mental disorders, diseases of the respiratory, endocrine, skeletal-muscular systems and connective tissue, infectious and parasitic diseases. | Be able to justify the choice of the scheme of dental treatment of patients with special physiological conditions, somatic and infectious pathology when discussing with colleagues, relatives of the patient. | To be responsible for the safety of performed dental manipulations in the treatment of patients in a special physiological state and in case of somatic, infectious pathology    |

| 1  | 2   | 3   | 4   | 5   | 6  |
|----|---|---|---|---|--|
| 9. | Performing medical and dental manipulations | Algorithm for performing medical and dental manipulations according to the lists in Appendix 6 and 7 of the Standard.   | Perform medical and dental manipulations according to the lists in Annexes 6 and 7 of the Standard.   |   | To be responsible for the quality of medical and dental manipulations                                      |
| 10 | Treatment of basic dental diseases          | <p>Schemes of treatment of various forms of non-cariou lesions, caries and its complications, patients with pathological changes of the periodontium, mucous membrane of the oral cavity.</p> <p>Composition, properties, indications for the use of filling materials for permanent and temporary fillings, therapeutic pads, filling of root canals (sealers and fillers) and methods of their application.</p> <p>Pharmacodynamics and pharmaco-kinetics, indications and contraindications for the use of medicinal and physiotherapeutic agents used in the clinic of therapeutic dentistry.</p> | Treat patients with various forms of non-cariou lesions, caries and its complications, patients with pathological changes in the periodontium, oral mucosa. | Be able to justify the effectiveness and quality of the treatment of patients with major dental diseases. | To be responsible for the completeness and quality of the treatment of patients with basic dental diseases |

| 1  | 2  | 3  | 4   | 5  | 6   |
|----|--|--|---|--|---|
| 11 | Organization and conduct of dental dispensation of persons subject to dispensary supervision.  | Basics of dispensation (types, stages, evaluation of effectiveness) of persons with dental diseases in accordance with the protocols for providing medical care in the specialty "therapeutic dentistry"   | Perform dispensary work in accordance with the basics of dispensation of persons with major dental diseases in accordance with protocols for providing medical care in the specialty "therapeutic dentistry"  | Organize dispensary work in close interaction with patients and their relatives.   | To be responsible for the high-quality organization and implementation of the dispensary for persons with basic stomatological diseases   |
| 12 | The ability to assess the influence of environmental factors of the environment on the state of the dental and jaw apparatus of a person and health in general | Features of the climate-geographical, social, economic characteristics of the region of residence of the dental patient. The impact of environmental, social, and occupational hazards on the condition of the dental and jaw apparatus and the human body in general. | Assess the impact of exogenous factors on the health of patients in general and the state of the dental and jaw apparatus, in particular. To determine the nature of disease-causing factors, pathogenetic links of pathological changes in dental status in persons exposed to pathogenic environmental factors.                                     | To be able to explain to the patient the impact of environmental, social, and occupational hazards on the state of the dental and jaw apparatus and the human body in general. | Bear responsibility for the lack of knowledge and its application regarding the climate-geographical, social, economic characteristics of the region of residence of the dental patient |
| 13 | Maintenance of medical documentation   | The list of necessary medical documentation of a dentist to be filled out at a therapeutic dental appointment (according to the order of the Ministry of Health No. 110 of 02/14/2012)   | Fill out the necessary medical documentation when conducting a therapeutic appointment: form No. 043/o "Medical card of a dental patient; No. 037/o "Dentist's daily record sheet" ; No. 039-2/o "Dentist's work accounting diary.<br>Be able to issue referrals for consultations of other specialists, X-ray, functional and laboratory examination | Be able to cooperate, exchange the necessary information about the patient's condition with specialized specialists  | To be responsible for the timeliness and correctness of medical documentation   |

## **Learning outcomes.**

Therapeutic dentistry, as an educational discipline, lays the foundation for the further formation of integrative final program learning results in accordance with the Standard of Higher Education of Ukraine for undergraduate training of specialists of the second (master's) level of the "Dentistry" specialty, which are indicated below.

1. Identify and identify leading clinical symptoms and syndromes (according to list 1); according to standard methods, using previous data of complaints, anamnesis, examination and assessment of local status, knowledge about a person, his organs and systems, establish a probable nosological or syndromic preliminary clinical diagnosis of a dental disease (according to list 2).
2. Collect information about the patient's general condition, evaluate the patient's psychomotor and physical development, the condition of the maxillofacial organs based on the results of laboratory and instrumental studies, evaluate information about the diagnosis (according to list 5).
3. Prescribe and analyze a laboratory, functional and/or instrumental examination (according to list 5) of a patient with a dental disease for differential diagnosis of diseases (according to list 2).
4. Formulate the final clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision and logical analysis of the received subjective and objective data of clinical, additional examination, carrying out differential diagnosis under the control of the head physician in the conditions of a medical institution (according to the list 2.1).
5. To establish the diagnosis of urgent conditions under any circumstances (at home, on the street, in a medical institution), in conditions of emergency, martial law, lack of information and limited time (according to list 4).
6. Plan and implement dental disease prevention measures among the population to prevent the spread of dental diseases.
7. Analyze the epidemiological situation and carry out measures of mass and individual, general and local drug and non-drug prevention of dental diseases.
8. Determine the nature of dental disease treatment (according to the list of m 2) by making a reasoned decision according to existing algorithms and standard schemes.
9. To determine the nature, principles of the regime of work, rest and necessary diet in the treatment of dental diseases (according to list 2) on the basis of a preliminary or final clinical diagnosis by making a reasoned decision according to existing algorithms and standard schemes.
10. Determine the tactics of managing a dental patient with somatic pathology (according to list 3) by making a reasoned decision according to existing algorithms and standard schemes.
11. Carry out treatment of basic dental diseases according to existing algorithms and standard schemes under the control of the head physician in the conditions of a medical institution (according to list 2.1).
12. To organize medical evacuation measures among the population, military personnel, in emergency situations, including martial law, during the expanded stages of medical evacuation, taking into account the existing system of medical evacuation support.
13. Determine the tactics of providing emergency medical care, using the recommended algorithms, under any circumstances based on the diagnosis of an emergency condition in limited time (according to list 4).
14. Analyze and evaluate state, social and medical information using standard approaches and computer information technologies.
15. Assess the impact of the environment on the state of health of the population

in the conditions of a medical institution according to standard methods

After completing the study of the discipline "Therapeutic Dentistry", students should **know** :

- clinical features of the anatomical and histological structure of the teeth, periodontium, mucous membrane and organs of the oral cavity;
- classification of dental diseases (caries and its complications, non-caries lesions of the hard tissues of the tooth), periodontium, oral mucosa;
- basic methods of examination of dental patients;
- clinical signs of dental diseases;
- basic clinical and biochemical indicators of the norm of biological fluids of the human body;
- principles of differential diagnosis of dental diseases;
- principles and stages of treatment of dental patients;
- types, levels and measures of prevention of diseases of the teeth, periodontium and mucous membrane of the oral cavity;
- the main signs of emergency conditions at a dental appointment and under any circumstances (at home, on the street, in a medical institution);
- tactics, algorithms for providing emergency medical assistance at a dental appointment and under any circumstances under limited time conditions;

**be able to :**

- conduct an examination of a dental patient;
- analyze changes in the structure of hard tissues of the tooth, pulp, periodontium, mucous membrane of the oral cavity, related to age and pathological conditions;
- substantiate and formulate a preliminary diagnosis;
- carry out differential diagnosis;
- analyze the results of examination of a dental patient;
- determine the clinical diagnosis of the main diseases of the teeth, periodontium, mucous membrane of the oral cavity;
- detect and identify manifestations of somatic, infectious diseases in the oral cavity;
- determine the nature and principles of treatment of patients in the clinic of therapeutic dentistry;
- identify various clinical variants and complications of the most common dental diseases;
- carry out primary and secondary prevention of the most common diseases in the clinic of therapeutic dentistry.
- to determine the necessary work and diet regime in the treatment of dental diseases in the clinic of therapeutic dentistry;
- determine the diagnosis of an emergency;
- determine the tactics and provision of emergency medical assistance;
- organize medical evacuation measures.

## **2. Information volume academic discipline**

630 hours - 21 are allocated to the study of the academic discipline ECTS credit.

According to the sample curriculum for training specialists of the second ( master's ) level of higher education in the field of knowledge 22 "Health care" in

higher educational institutions of the Ministry of Health of Ukraine by specialty 221 "Dentistry" educational qualification "Master of Dentistry", professional qualification "Dentist" (2016) study hours are distributed as follows:

| Subjects,<br>year of study | Credit<br>ECTS | Number of hours |     |              |           |     |
|----------------------------|----------------|-----------------|-----|--------------|-----------|-----|
|                            |                | In total        | Aud | Lecture<br>s | Practical | SRS |
| Therapeutic dentistry      |                |                 |     |              |           |     |
| 3rd year of study          | 7              | 210             | 150 | 30           | 120       | 60  |

The program of the academic discipline "Therapeutic Dentistry" is structured on **modules**, which include **blocks of meaningful modules**:

**Module 1**. Methods of examining a dental patient. Damage to the hard tissues of the teeth.

**Informative module 1.** Examination of a dental patient with odontopathology.

**Informative module 2.** Caries and non-carious lesions of teeth.

**Module 2.** Endodontic disease (pulpitis and periodontitis). Etiology, pathogenesis. Classification. Clinic, diagnosis, differential diagnosis, treatment, prevention.

**Content module 3.** Pulpit.

**Content module 4.** Periodontitis.

### 3. The structure of the academic discipline

| Names of meaningful modules and topics  | Number of hours |          |          |      |
|---|-----------------|----------|----------|------|
|   | In total        | Lectures | Practice | S.S. |
| 1   | 2               | 3        | 4        | 5    |
| <b>Module 1.</b> Methods of examining a dental patient.<br>Damage to the hard tissues of the teeth - 3.2 credits ( 90 hours).   |                 |          |          |      |
| <b>Content module No. 1.</b><br>Examination of a dental patient with odontopathology  |                 |          |          |      |
| Topic 1. Organization of dental care in Ukraine. The structure of the dental polyclinic and its therapeutic department. Tasks of therapeutic dentistry, relationship with general clinical and dental disciplines. Equipping the dentist's workplace: universal dental units and chairs. Safety equipment. Ethics and deontology in dentistry | 5               |          | 3        | 2    |
| Topic 2. Iatrogenic diseases. Medical assistance in emergency situations. Medical documentation of a therapeutic appointment: rules for filling out, extracting referrals, etc. The medical card of a dental patient (f. 043/O) is a medical, scientific and legal document.  | 5               |          | 3        | 2    |

|  |   |   |   |   |
|--|---|---|---|---|
| Topic 3. Scheme of examination of a dental patient. Subjective examination: complaints, medical history and life. Characteristics of pain syndrome in various dental lesions. Clinical examination methods, their significance for diagnosing diseases of the oral cavity: examination (external, patient's face, crown, oral cavity itself, dental rows). Examination of the site of the disease (Locus morbi): examination of the affected tooth, probing, percussion, palpation.                            | 7 | 2 | 3 | 2 |
| Topic 4. Auxiliary methods of patient examination: thermodiagnosics, EOD, use of caries detectors: methods of conducting, interpretation of results. X-ray, luminescent and transillumination diagnostics. Indications, features of the procedure. Diagnostic tests: with anesthesia and for dissection. Techniques for determining trigger zones and examining the exit points of the peripheral branches of the trigeminal nerve. Laboratory methods of examination. Interpretation of results.              | 5 |   | 3 | 2 |
| Topic 5. Oral hygiene and its importance in the comprehensive prevention of diseases of the oral cavity and the body as a whole. Determination of GI according to Fedorov-Volodkina and Green-Vermillion (standard and simplified methods), oral hygiene effectiveness index. Plaque and calculus. Formation mechanism. Structure, physical properties, chemical composition, microflora. Removal methods. Conducting professional oral hygiene. Evaluation of the effectiveness of plaque and tartar removal. | 3 |   | 3 |   |

| 1  | 2 | 3 | 4 | 5 |
|--|---|---|---|---|
| <b>Content module 2.</b><br>Caries and non-carious tooth damage  |   |   |   |   |
| Topic 6 . Tooth decay. Definition of the concept. Statistical indicators of tooth caries. Classification of caries. The concept of structural and functional resistance of hard tooth tissues. Determination of enamel resistance ( TER -test). Modern ideas about the etiology and pathogenesis of caries. Contribution of scientists: Miller, D.A. Entina, I.H. Lukomsky, A.E. Sharpenaka, A.I. Rybakova, E.V. Borovsky, P.A. Leusa, V.K. Leontieva, V.R. Okushko E.V. Borovsky and others). | 7 | 2 | 3 | 2 |
| Topic 7 . Morphological changes in the hard tissues of the teeth at different stages of the development of the carious process according to the data of electron, beam and transillumination microscopy. Acute and chronic caries in the spot stage. Pathomorphology, clinic, diagnosis, differential diagnosis. Treatment of acute and chronic initial caries. Medicinal means and methods of remineralizing therapy: groups, properties, features of use.                                    | 5 |   | 3 | 2 |
| Topic 8 . Acute and chronic surface caries: pathomorphology, clinic, diagnosis, differential diagnosis, treatment. Acute and chronic medium caries: pathomorphology, clinic, diagnosis, differential diagnosis, treatment.   | 7 |   | 2 | 3 |

|   |   |   |   |   |
|---|---|---|---|---|
| Topic 9 . Acute deep caries: pathomorphology, clinic, diagnosis, intra- and extra-syndromic differential diagnosis. One-session and two-session methods of treatment of acute deep caries. Medicinal pastes: groups, properties, methods of use.  |   |   | 3 | 2 |
| Topic 10 . Chronic deep caries: pathomorphology, clinic, diagnosis, differential diagnosis, treatment.  | 5 |   | 3 | 2 |
| Topic 11 . Flowering caries: causes of development, pathomorphology, clinic, diagnosis. Treatment of multiple caries: general and local. Medicinal products: groups, dosage, methods of use.<br>Secondary caries of depulped and non-depulped teeth: cause, clinic, diagnosis, differential diagnosis. Treatment, prevention. | 7 | 2 | 3 | 2 |
| Topic 12 . Caries prevention. The value of individual and social prevention. Means of prevention. Organization of dental caries prevention of pregnant women, conscripts, and workers of certain industries. Performance evaluation.  | 3 |   | 3 |   |

| 1   | 2         | 3         | 4         | 5         |
|---|-----------|-----------|-----------|-----------|
| Topic 13 . Non-cariou lesions of teeth. Patrikeev's classification. Pathomorphology, clinic and diagnosis of non-cariou lesions occurring before teeth eruption: hypo-, hyperplasia, endemic fluorosis. Classification of dental fluorosis according to A.K. Nikolishinim.  | 5         |           | 3         | 2         |
| Topic 14 . Pathomorphology, clinic and diagnosis of non-cariou lesions occurring after teeth eruption. Traumatic and chemical lesions. Hyperesthesia of hard tissues of teeth. Elimination of hyperesthesia using modern desensitizers: composition, properties, methods of use. Pathomorphology, clinic, diagnosis and treatment of enamel erosion, wedge-shaped defect. | 7         | 2         | 3         | 2         |
| Topic 15. Errors and complications in the diagnosis and treatment of caries.<br>The use of physical methods for the treatment and prevention of caries and non-cariou dental lesions.   | 5         |           | 3         | 2         |
| Topic 16 . Writing an expanded map of an outpatient for various forms of caries and non- cariou lesions.  |           |           | 3         |           |
| Topic 17 . Differentiated scoring   | 4         |           | 2         | 2         |
| <b>Total hours for module 1.</b>  | <b>90</b> | <b>10</b> | <b>50</b> | <b>30</b> |

**Module 2.** Endodontic diseases (pulpitis, periodontitis).

Etiology, pathogenesis. Classification. Clinic, diagnostics, treatment, prevention - 3.8 credits (120 hours)

| 1   | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| <b>Content module No. 3.</b>  |   |   |   |   |
| <b>"Pulpit".</b>  |   |   |   |   |
| Topic 1. Pulpit. Etiology, pathogenesis, classification (E.M. Gofung, KMI (1964), MKH-10), their positive qualities and shortcomings. | 4 | 2 | 3 | 1 |

|  |   |   |   |   |
|--|---|---|---|---|
| Topic 2. Acute traumatic pulpitis: pathomorphology, clinic, diagnosis. Pulp hyperemia: pathomorphology, clinic, diagnosis, differential diagnosis.   | 4 |   | 3 | 1 |
| Topic 3. Acute partial (limited) pulpitis: pathomorphology, clinic, diagnosis, differential diagnosis. Acute general (diffuse) pulpitis: pathomorphology, clinic, diagnosis.   | 6 |   | 3 | 1 |
| Topic 4. Acute purulent pulpitis: pathomorphology, clinic, diagnosis.  | 4 |   | 3 | 1 |
| Topic 5. Chronic simple (fibrous) pulpitis: pathomorphology, clinic, diagnosis.  | 4 |   | 3 | 1 |
| Topic 6. Chronic hypertrophic pulpitis: pathomorphology, clinic, diagnosis.  | 4 |   | 3 | 1 |
| Topic 7. Chronic gangrenous pulpitis: pathomorphology, clinic, diagnosis. Pulp necrosis and atrophy.   | 4 |   | 3 | 1 |
| Topic 8. Chronic gangrenous pulpitis: pathomorphology, clinic, diagnosis. Pulp necrosis and atrophy.   | 4 |   | 3 | 1 |
| Topic 9. Methods and means of analgesia for pulpitis. Medicinal products and methods of their use. Premedication. Methods of treatment of pulpitis. Justification of the choice of the method of treatment of pulpitis depending on the form, course and general condition of the body.  | 4 |   | 3 | 1 |
| Topic 10. Pulp preservation method (biological): indications for use. Method of treatment. Medicines, their prescription. Effectiveness and possible complications. Vital amputation method of treatment of pulpitis: indications, technique, drugs. Effectiveness of the method.  | 7 | 2 | 3 | 2 |
| Topic 11. Vital extirpation method of treatment of pulpitis: indications, technique, drugs. Effectiveness of the method, possible complications. Diathermocoagulation. Indications, procedure, complications.  | 5 |   | 3 | 1 |
| Topic 12. Pulp devitalization: indications for use, method of implementation, medicinal products. Devital extirpation of the pulp. Indications, stages of treatment, modern technologies. Possible complications and their elimination. Effectiveness of the method. Devital amputation and combined methods of treatment of pulpitis. Indications for use. Methodology: stages, medicinal products. Disadvantages and possible complications. | 6 | 2 | 3 | 1 |
| Topic 13. Sealers for sealing root canals with pulpitis: groups, properties, indications for use, sealing technique. Fillers: types and properties. Methods of sealing root canals in the treatment of pulpitis by the method of central pin, vertical condensation of gutta-percha, cold and warm lateral condensation of gutta-percha. Errors and complications.   | 5 |   | 3 | 2 |
| Topic 14. Writing an extended card of an outpatient for various forms of pulpitis.   | 4 |   | 3 | 1 |
| <b>Content module 4. Periodontitis</b>   |   |   |   |   |
| Topic 15. Periodontitis: etiology, pathogenesis, classification (I.G. Lukomskyi, M.A. Groshikova, S.A. Vaindrukh, MKH-10). Pathological anatomy of acute and chronic periodontitis. X-ray diagnostics of periodontitis. Concepts of osteosclerosis, osteoporosis, destruction, deformation, hypercementosis, etc.  | 4 |   | 3 | 1 |

|  |              |            |            |           |
|--|--------------|------------|------------|-----------|
| Topic 16 . Acute drug-induced and traumatic apical periodontitis: etiology, pathogenesis, clinic, diagnosis.   | 5            |            | 3          | 2         |
| Topic 17 . Acute serous apical periodontitis: etiology, pathogenesis, clinic, diagnosis. Acute purulent apical periodontitis: etiology, pathogenesis, clinic, diagnosis.   | 4            |            | 3          | 1         |
| Topic 18 . Chronic fibrous apical periodontitis: etiology, pathogenesis, clinic, diagnosis. Chronic granulating apical periodontitis: etiology, pathogenesis, clinic, diagnosis  | 4            |            | 3          | 1         |
| Topic 19 . Chronic granulomatous apical periodontitis: etiology, pathogenesis, clinic, diagnosis. Exacerbation of chronic apical periodontitis: etiology, pathogenesis, clinic, diagnosis. Complication of periodontitis with periostitis.   | 4            |            | 3          | 1         |
| Topic 20 . Treatment of acute serous and purulent apical periodontitis of infectious origin. Emergency aid. The sequence and features of treatment stages. Modern technologies and tools for processing root canals. Features of sealing. Treatment of acute drug-induced and traumatic apical periodontitis. The sequence and features of treatment stages. Antidote therapy. . | 4            |            | 3          | 1         |
| Topic 21. Treatment of chronic apical periodontitis of single-rooted and multi-rooted teeth. Principles of treatment. Methods of influencing the post-apical focus of infection. The sequence and features of treatment stages. Effectiveness of treatment. Indications and treatment of apical periodontitis in abbreviated terms.  | 4            |            | 3          | 1         |
| 1  | 2            | 3          | 4          | 5         |
| Topic 22 . Writing an extended card of an outpatient patient for various forms of periodontitis. The use of physical factors in the complex therapy of pulpitis and periodontitis. Methods. Apparatus. Errors in the diagnosis and treatment of periodontitis. Causes, methods of elimination and prevention.  | 5            |            | 3          | 2         |
| Topic 23 . Diff. test.   | 6            |            | 4          | 2         |
| <b>Total hours for module 2</b>  | <b>1 2 0</b> | <b>2 0</b> | <b>7 0</b> | <b>30</b> |
| <b>Total hours for module 1 and 2 (for the 3rd year of study)</b>  | <b>210</b>   | <b>30</b>  | <b>120</b> | <b>60</b> |

**THEMATIC PLAN OF LECTURES ON THERAPEUTIC DENTISTRY  
FOR STUDENTS OF THE III COURSE of the 5th semester  
2022-23**

| No | TOPIC OF THE LECTURE  | Number of hours |
|----|---|-----------------|
| 1  | Examination of a dental patient: subjective and objective basic and additional methods. Medical documentation of a therapeutic dental appointment. Medical history as a medical, legal and scientific document. | 2               |

|   |   |    |
|---|---|----|
| 2 | Tooth decay. Definition. Epidemiology of caries: prevalence and intensity of caries, increase in intensity. WHO epidemiological survey map. Etiology and pathogenesis of caries. Modern ideas about the causes and theories of the development of caries: the essence, advantages and disadvantages. The concept of functional and structural resistance of hard tooth tissues. | 2  |
| 3 | Tooth decay. Classification. Morphological changes of the hard tissues of the tooth at different stages of the carious process according to the data of beam, electron and polarization microscopy. Clinic, diagnosis and differential diagnosis of caries. Use of physical methods for caries diagnosis  | 2  |
| 4 | Caries treatment: types, choice of method depending on the clinical form. Remineralizing therapy. Stages of surgical treatment. Features of deep caries treatment. General and local treatment of multiple caries. Medicinal products and physical methods in the complex therapy of dental caries.   | 2  |
| 5 | Non-carious lesions of teeth. Classification according to Patrikeev. Pathomorphology, clinic and diagnosis of lesions occurring before and after teething. Treatment.   | 2  |
|   | In total  | 10 |

**THEMATIC PLAN OF PRACTICAL LESSONS IN THERAPEUTIC  
DENTISTRY  
FOR STUDENTS OF THE III COURSE of the 5th semester for 2022-2023  
academic year**

| No  | Topic  | Hours |
|---|--|-------|
| <b>Module 1: "Methods of examining a dental patient. Diseases of the hard tissues of the tooth"</b> |  |       |
| <b>Content module No. 1 "Examination of a dental patient with odontopathology"</b>                  |  |       |
| 1.  | Organization of dental care in Ukraine. The structure of the dental polyclinic and its therapeutic department. Tasks of therapeutic dentistry, relationship with general clinical and dental disciplines. Equipping the dentist's workplace: universal dental units and chairs. Safety equipment. Ethics and deontology in dentistry   | 3     |
| 2   | Iatrogenic diseases. Medical assistance in emergency situations. Medical documentation of a therapeutic appointment: rules for filling out, extracting referrals, etc. The medical card of a dental patient (f. 043/O) is a medical, scientific and legal document.  |       |
| 3   | Scheme of examination of a dental patient. Subjective examination: complaints, medical history and life. Characteristics of pain syndrome in various dental lesions. Clinical examination methods, their significance for diagnosing diseases of the oral cavity: examination (external, patient's face, crown, oral cavity itself, dental rows). Examination of the site of the disease (Locus morbi): examination of the affected tooth, probing, percussion, palpation. | 3     |

|    |   |   |
|----|---|---|
| 4  | Auxiliary methods of examination of the patient: thermodiagnosics, EOD, use of caries detectors: methods of conducting, interpretation of results. X-ray, luminescent and transillumination diagnostics. Indications, features of the procedure. Diagnostic tests: with anesthesia and for dissection. Techniques for determining trigger zones and examining the exit points of the peripheral branches of the trigeminal nerve. Laboratory methods of examination. Interpretation of results.       | 3 |
| 5  | Oral hygiene and its importance in the comprehensive prevention of diseases of the oral cavity and the body as a whole. Determination of GI according to Fedorov-Volodkina and Green-Vermillion (standard and simplified methods), oral hygiene effectiveness index. Plaque and calculus. Formation mechanism. Structure, physical properties, chemical composition, microflora. Removal methods. Conducting professional oral hygiene. Evaluation of the effectiveness of plaque and tartar removal. | 3 |
| 6  | Tooth decay. Definition of the concept. Statistical indicators of tooth caries. Classification of caries. The concept of structural and functional resistance of hard tooth tissues. Determination of enamel resistance ( TER -test). Modern ideas about the etiology and pathogenesis of caries. Contribution of scientists: Miller, D.A. Entina, I.H. Lukomsky, A.E. Sharpenaka, A.I. Rybakova, E.V. Borovsky, P.A. Leusa, V.K. Leontieva, V.R. Okushko E.V. Borovsky and others).                  | 3 |
| 7  | Morphological changes in the hard tissues of the teeth at different stages of the development of the carious process according to the data of electron, beam and transillumination microscopy. Acute and chronic caries in the spot stage. Pathomorphology, clinic, diagnosis, differential diagnosis. Treatment of acute and chronic initial caries. Medicinal means and methods of remineralizing therapy: groups, properties, features of use.   | 3 |
| 8  | Acute and chronic surface caries: pathomorphology, clinic, diagnosis, differential diagnosis, treatment. Acute and chronic medium caries: pathomorphology, clinic, diagnosis, differential diagnosis, treatment.  | 3 |
| 9  | Acute deep caries: pathomorphology, clinic, diagnosis, intra- and extra-syndromic differential diagnosis. One-session and two-session methods of treatment of acute deep caries. Medicinal pastes: groups, properties, methods of use.  | 3 |
| 10 | Chronic deep caries: pathomorphology, clinic, diagnosis, differential diagnosis, treatment.   | 3 |
| 11 | Flowering caries: causes of development, pathomorphology, clinic, diagnosis. Treatment of multiple caries: general and local. Medicinal products: groups, dosage, methods of use.<br>Secondary caries of depulped and non-depulped teeth: cause, clinic, diagnosis, differential diagnosis. Treatment, prevention.  | 3 |
| 12 | Caries prevention. The value of individual and social prevention. Means of prevention. Organization of dental caries prevention of pregnant women, conscripts, and workers of certain industries. Performance evaluation.   | 3 |
| 13 | Non-carious lesions of teeth. Patrikeev's classification. Pathomorphology, clinic and diagnosis of non-carious lesions occurring before teeth eruption: hypo-, hyperplasia, endemic fluorosis. Classification of dental fluorosis according to A.K. Nikolishinim.   | 3 |

|    |   |           |
|----|---|-----------|
| 14 | Pathomorphology, clinic and diagnosis of non-carious lesions occurring after teeth eruption. Traumatic and chemical lesions. Hyperesthesia of hard tissues of teeth. Elimination of hyperesthesia using modern desensitizers: composition, properties, methods of use. Pathomorphology, clinic, diagnosis and treatment of enamel erosion, wedge-shaped defect. | 3         |
| 15 | Errors and complications in the diagnosis and treatment of caries.<br>The use of physical methods for the treatment and prevention of caries and non-carious dental lesions.  | 3         |
| 16 | Writing an expanded map of an outpatient for various forms of caries and non-carious lesions.   | 3         |
| 17 | Diff. exam  | 2         |
|    | <b>In total</b>   | <b>50</b> |

**THEMATIC PLAN OF LECTURES ON THERAPEUTIC DENTISTRY  
FOR STUDENTS OF THE III COURSE OF THE 6TH SEMESTER OF  
2022-2023**

| No | TOPIC OF THE LECTURE   | Hours |
|----|--|-------|
| 1  | Pulpitis: etiology and pathogenesis and classifications. Pathomorphology of acute and chronic forms of pulpitis. Symptomatology of pulpitis. Characteristics and mechanism of pain syndrome. Clinic, diagnosis of acute forms of pulpitis. Clinic, diagnosis of chronic forms of pulpitis and their exacerbation. Differential diagnosis of various forms of pulpitis. | 2     |
| 2  | Analgesia in therapeutic dentistry. Treatment of pulpitis with biological, vital amputation and extirpation methods. Indications, sequence and features of stages. Effectiveness of methods, possible complications and methods of their prevention.   | 2     |
| 3  | Devital extirpation, amputation and combined method of treatment of pulpitis. Mummification, stages of implementation, complications. Comparative characteristics of various methods of treatment of pulpitis.   | 2     |
| 4  | Periodontitis. Etiology and pathogenesis. Pathomorphological changes in various forms of periodontitis. Classification of periodontitis. Clinic, diagnosis, differential diagnosis of acute forms of periodontitis. Clinic, diagnosis, differential diagnosis of chronic and acute forms of periodontitis. The value of the x-ray diagnostic method.                   | 2     |
| 5  | Treatment of various forms of periodontitis. Emergency aid. General principles, sequence and features of treatment stages. Modern methods of influencing the post-apical focus of infection.<br>Errors and complications in therapeutic dentistry, their causes, prevention and methods of elimination.  | 2     |
|    | In total   | 10    |

**THEMATIC PLAN OF PRACTICAL LESSONS IN THERAPEUTIC  
DENTISTRY  
FOR STUDENTS OF THE III COURSE, 6th semester, 2022 -2023**

| No | TOPIC   | Hours |
|----|---|-------|
|    | <b>Module 2: "Endodontic disease (pulpitis, periodontitis). Etiology, pathogenesis. Classification. Clinic, diagnosis, treatment, prevention"</b> |       |
|    | <b>Content module No. 3. "Pulpit".</b>  |       |

|   |   |   |
|---|---|---|
| 1.  | Pulpit. Etiology, pathogenesis, classification (E.M. Gofung, KMI (1964), MKH-10), their positive qualities and shortcomings.  | 3 |
| 2.  | Acute traumatic pulpitis: pathomorphology, clinic, diagnosis. Pulp hyperemia: pathomorphology, clinic, diagnosis, differential diagnosis.   | 3 |
| 3.  | Acute partial (limited) pulpitis: pathomorphology, clinic, diagnosis, differential diagnosis. Acute general (diffuse) pulpitis: pathomorphology, clinic, diagnosis.   | 3 |
| 4.  | Acute purulent pulpitis: pathomorphology, clinic, diagnosis.  | 3 |
| 5   | Chronic simple (fibrous) pulpitis: pathomorphology, clinic, diagnosis.  | 3 |
| 6   | Chronic hypertrophic pulpitis: pathomorphology, clinic, diagnosis.  | 3 |
| 7   | Chronic gangrenous pulpitis: pathomorphology, clinic, diagnosis. Pulp necrosis and atrophy.   | 3 |
| 8   | Concrementous and root (retrograde) pulpitis: pathomorphology, clinic, diagnosis. Exacerbation of chronic pulpitis: pathomorphology, clinic, diagnosis.   | 3 |
| 9   | Methods and means of analgesia for pulpitis. Medicinal products and methods of their use. Premedication. Methods of treatment of pulpitis. Justification of the choice of the method of treatment of pulpitis depending on the form, course and general condition of the body.  | 3 |
| 10  | Pulp preservation method (biological): indications for use. Method of treatment. Medicines, their prescription. Effectiveness and possible complications. Vital amputation method of treatment of pulpitis: indications, technique, drugs. Effectiveness of the method.   | 3 |
| 11  | Vital extirpation method of treatment of pulpitis: indications, technique, drugs. Effectiveness of the method, possible complications. Diathermocoagulation. Indications, procedure, complications.   | 3 |
| 12  | Pulp devitalization: indications for use, methods of implementation, medicinal products. Devital extirpation of the pulp. Indications, stages of treatment, modern technologies. Possible complications and their elimination. Effectiveness of the method. Devital amputation and combined methods of treatment of pulpitis. Indications for use. Methodology: stages, medicinal products. Disadvantages and possible complications. | 3 |
| 13  | Sealers for sealing root canals with pulpitis: groups, properties, indications for use, sealing technique. Fillers: types and properties. Methods of sealing root canals in the treatment of pulpitis by the method of central pin, vertical condensation of gutta-percha, cold and warm lateral condensation of gutta-percha. Errors and complications.  | 3 |
| 14  | Writing an extended card of an outpatient for various forms of pulpitis.  | 3 |
| <b>Content module No. 4. "Periodontitis".</b> |   |   |
| 15  | Periodontitis: etiology, pathogenesis, classification (I.G. Lukomskyi, M.A. Groshikova, S.A Vaindrukh, MKH-10). Pathological anatomy of acute and chronic periodontitis. X-ray diagnostics of periodontitis. Concepts of osteosclerosis, osteoporosis, destruction, deformation, hypercementosis, etc.  | 3 |
| 16  | Acute drug-induced and traumatic apical periodontitis: etiology, pathogenesis, clinic, diagnosis.   | 3 |
| 17  | Acute serous apical periodontitis: etiology, pathogenesis, clinic, diagnosis. Acute purulent apical periodontitis: etiology, pathogenesis, clinic, diagnosis.   | 3 |
| 18  | Chronic fibrous apical periodontitis: etiology, pathogenesis, clinic, diagnosis. Chronic granulating apical periodontitis: etiology, pathogenesis, clinic, diagnosis  | 3 |
| 19  | Chronic granulomatous apical periodontitis: etiology, pathogenesis, clinic, diagnosis. Exacerbation of chronic apical periodontitis: etiology, pathogenesis, clinic, diagnosis. Complication of periodontitis with periostitis.   | 3 |

|    |   |    |
|----|---|----|
| 20 | Treatment of acute serous and purulent apical periodontitis of infectious origin. Emergency aid. The sequence and features of treatment stages. Modern technologies and tools for processing root canals. Features of sealing. Treatment of acute drug-induced and traumatic apical periodontitis. The sequence and features of treatment stages. Antidote therapy. | 3  |
| 21 | Treatment of chronic apical periodontitis of single-rooted and multi-rooted teeth. Principles of treatment. Methods of influencing the post-apical focus of infection. The sequence and features of treatment stages. Effectiveness of treatment. Indications and treatment of apical periodontitis in abbreviated terms.   | 3  |
| 22 | Writing an extended card of an outpatient patient for various forms of periodontitis. The use of physical factors in the complex therapy of pulpitis and periodontitis. Methods. Apparatus. Errors in the diagnosis and treatment of periodontitis. Causes, methods of elimination and prevention.  | 3  |
| 23 | Diff. exam  | 4  |
|    | In total  | 70 |

**Thematic plan of students' independent out-of-classroom  
work  
from the discipline of therapeutic stomatology  
For students of the dentistry department of IAEM 2022 -23  
3rd year, 5th, 6th semesters**

| №  | Topics names   | Hours     |
|--|--|-----------|
| <b>Module 1. Methods of examining a dental patient.<br/>Damage to the hard tissues of the teeth.</b> |  |           |
| 1  | <b>Preparation for practical classes</b> – theoretical preparation and development of practical skills.  | 24        |
| 2  | <b>Preparation for control of mastering content modules</b> – theoretical preparation and development of practical skills.   | 2         |
| 3  | <b>Independent study of topics</b> that are not part of the classroom lesson plan:   |           |
| 3.1  | Emergency conditions at a dental appointment: causes, clinical manifestations, medical assistance.   | 1         |
| 3.2  | Changes in the color of teeth (discoloration) and methods of their elimination.  | 1         |
| 4  | Preparation for the final modular control.   | 2         |
|  | <b>In total</b>  | <b>30</b> |
| <b>Module 2. Endodontic disease (pulpitis and periodontitis)</b>                                     |  |           |
| 1  | <b>Preparation for practical classes</b> – theoretical preparation and development of practical skills.  | 25        |
| 2  | <b>Preparation for control of mastering content modules</b> – theoretical preparation and development of practical skills.   | 2         |
| 3  | <b>Independent study of topics</b> that are not part of the classroom lesson plan:   |           |
| 3.1  | Methods of instrumental treatment of impenetrable root canals: drugs for chemical expansion, pulp mummification and impregnation of impenetrable root canals. Depot-phoresis. Disadvantages and possible complications | 1         |
| 3.2  | The concept of tooth restoration. Planning the construction of the   | 1         |

|   |  |           |
|---|--|-----------|
|   | restoration of vital teeth and teeth after endodontic treatment. |           |
| 4 | <b>Preparation for the final modular control .</b>               | 1         |
|   | <b>In total</b>  | <b>30</b> |
|   | In total for the 1st and 2nd module                              | 60        |

Independent work of students involves:

- development of topics that are not included in the topics of classroom classes;
- preparation for practical classes;
- preparation for control of mastering content modules and final modular control

## 9. Individual tasks

1. Creation of educational videos on:
  - diagnosis and treatment of diseases of hard tooth tissues of carious and non-carious origin, endodontic diseases;
  - on the methods of examination of the dental patient, diagnosis and treatment of periodontal diseases;
  - on the methods of examination of the dental patient, diagnosis and treatment of diseases of the mucous membrane of the oral cavity;
  - on differential diagnosis of dental diseases in the clinic of therapeutic dentistry.
2. Production of tools for visualizing learning (educational stands, models, preparations, etc.).
3. Preparation of scientific student papers and reports at scientific student conferences.
4. Participation in professional student Olympiads in the discipline.
5. Participation in competitions of professional skills.

## 10. Tasks for independent work of students

### **List of theoretical questions for content module No. 1 "Examination of a dental patient with odontopathology".**

1. Therapeutic dentistry as the main dental discipline. Tasks of therapeutic dentistry, relationship with general clinical and dental disciplines. Sections of therapeutic dentistry. The historical significance of the contribution of scientists to solving the current problems of dentistry.
2. The structure of the dental polyclinic and its therapeutic department. Equipping the dentist's workplace. Ethics and deontology in dentistry. Iatrogenic diseases.
3. Professional diseases of dentists and their prevention.
4. Emergencies in therapeutic dentistry: causes of development, clinical manifestations. Providing emergency care.
5. Principles and scheme of examination of a dental patient. The value and informativeness of the subjective method of examination, the sequence of its implementation.
6. Basic methods of objective examination of a dental patient: methods of conducting, their informativeness and significance.
7. Additional methods of objective examination of a dental patient: method of conducting, interpretation of results.

8. Medical documentation of a therapeutic appointment: filling rules . The medical card of a dental patient (f. 043/O) is a medical, scientific and legal document.

9. Oral hygiene. Means and methods. The importance of dental plaque in the pathogenesis of dental caries.

10. Determination of the hygienic index according to Fedorov-Volodkina, qualitative and quantitative characteristics, interpretation of the results.

11. Determination of the hygienic index according to Green-Vermillion, interpretation of the results.

12. Dental layering. Species, composition. The mechanism of formation of dental plaque and calculus. The importance of dental plaque in the occurrence of caries.

13. The concept of professional teeth cleaning. Methods of removing dental deposits, means and tools.

### **List of practical tasks for content module 1 "Examination of a dental patient with odontopathology".**

1. Use the knowledge of normative documents for the equipment of the dental office and ensure its functioning in compliance with hygienic requirements and the basics of ergonomics in dentistry.

2. Knowledge of the rules of safety in working with electrical devices, universal installations and dental chairs, potent medicinal products, small endodontic instruments.

3. Provide medical assistance in case of fainting, collapse, shock, allergic reactions, hypertensive crisis.

4. Conduct a subjective examination of the patient: collect complaints, medical and life history.

5. To carry out the main methods of objective examination: external examination of the patient, examination of the crown and the oral cavity itself.

6. Conduct an examination of the site of the disease: inspection of the carious cavity, probing, percussion, palpation of the mucous membrane in the region of the causative tooth.

7. Carry out auxiliary methods of patient examination: thermodiagnosics, EOD, caries marking (vital staining), etc.

8. To evaluate the results of auxiliary methods of patient examination: thermodiagnosics, EOD, caries marking (vital staining), etc.

9. It is justified to appoint and evaluate the results of x-ray, luminescence and transillumination diagnostics, computer tomography .

10. Reasonably prescribe, conduct and interpret diagnostic tests: with anesthesia and for dissection.

11. Conduct an examination of the exit points of the peripheral branches of the trigeminal nerve.

12. Evaluate the results of oral fluid, blood, and urine tests.

13. Fill out the dental patient's outpatient card, daily patient record sheet.

14. Write a referral to a physiotherapeutic office, for consultation with other specialists, for x-ray, allergological examination.

15. Determine the hygienic index according to Fedorov-Volodkina and give an assessment of the state of oral hygiene.

16. Determine the hygienic index according to Green-Vermillion and give an assessment of the state of oral hygiene.

17. Remove dental plaque and calculus by various methods: manual, chemical, hardware (air-abrasive, sound, ultrasonic, magnetostrictive and piezoelectric), combined. Perform professional oral hygiene.
18. To evaluate the effectiveness of oral hygiene.

**List of theoretical questions for content module 2  
"Caries and non-carious lesions of teeth".**

1. Tooth decay. Definition. Epidemiology of caries: prevalence, intensity, increase in intensity; methods of their determination.
2. Caries classification (working).
3. Miller's theory of the occurrence and development of caries. Bottom line, positive and negative sides.
4. The theory of the occurrence and development of caries D.A. Entina. Bottom line, positive and negative sides.
5. The theory of the occurrence and development of caries A.I. Rybakova Bottom line, positive and negative sides.
6. Theories of the occurrence and development of caries E.V. Borovsky Bottom line, positive and negative sides.
7. Modern interpretation of the etiology of dental caries. Types of oral cavity microorganisms. Factors determining their cariogenicity.
8. Concept of structural and functional resistance of enamel. The concept and meaning of dental fluid.
9. Enamel resistance test. Essence, methodology, interpretation of results.
10. KVSHRE test: essence, method of conducting, interpretation of results.
11. Pathomorphology, clinic, diagnosis of acute initial (stain stage) caries.
12. Treatment of acute initial caries (in the white spot stage). Medicines, methods.
13. Pathomorphology, clinic, diagnosis of acute surface caries.
14. Pathomorphology, clinic, diagnosis of chronic surface caries.
15. Pathomorphology, clinic, diagnosis of acute medium caries.
16. Sequence and stages of treatment of acute medium caries.
17. Pathomorphological changes in tooth tissues in chronic medium caries.
18. Clinic, diagnosis of chronic medium caries.
19. Pathomorphology, clinic, diagnosis of acute deep caries.
20. Treatment of acute and chronic medium caries.
21. The sequence and features of the treatment stages of acute deep caries in one visit. Medicinal pastes: groups, composition, properties, mechanism of action, peculiarities of preparation and application.
22. Treatment of acute deep caries in two visits. The sequence and features of the stages.
23. Pathomorphology, clinic, diagnosis of chronic deep caries.
24. Treatment of chronic deep caries. Sequence of stages and feature of treatment.
25. Flowering caries: definition, causes of development, clinical manifestations and diagnosis.
26. The choice of tactics for the preparation of carious cavities, taking into account the individual caries resistance and vitality of the tooth, the properties of filling materials.

27. Treatment of blooming caries. Groups of medicines, features of appointment, dosage.
28. Causes and prevention of secondary caries.
29. Pathomorphology, clinic and diagnosis of secondary caries.
30. Non-carious lesions of teeth. Classification according to Patrikeev. Pathomorphology, clinic and diagnosis of non-carious lesions occurring before teeth eruption: hypoplasia, hyperplasia, endemic fluorosis, anomalies of teeth eruption.
31. Pathomorphology, clinic and diagnosis of non-carious lesions occurring after teeth eruption: traumatic and chemical lesions.
32. Dental hyperesthesia: causes of development, types.
33. Treatment of hyperesthesia: groups of modern desensitizers, composition, properties, methods of use.
34. Pathomorphology, clinic, diagnosis, treatment of wedge-shaped defect.
35. Pathomorphology, clinic, diagnosis, treatment of tooth enamel erosion.
36. Pathomorphology, clinic, diagnosis, treatment of increased wear of teeth.
37. Changes in the color of teeth (discoloration) and methods of their elimination.
38. The concept of tooth restoration. Planning the construction of the restoration. Tools and accessories for its implementation and finishing.
39. Methods and means of anesthesia in the treatment of caries.
40. Caries prevention. Definition. Types of prevention. The value of individual and social prevention.
41. Use of physical methods in complex caries therapy: indications, contraindications, mechanism of action, method of implementation.

**List of practical tasks for content module 2  
"Caries and non-carious lesions of teeth".**

1. To determine the prevalence, intensity and increase in caries intensity.
2. Determine the state of enamel resistance (enamel resistance test).
3. To determine the speed of enamel remineralization (KVSHRE test).
4. Diagnose acute and chronic initial, superficial, medium, and deep caries using basic and additional examination methods.
5. Carry out intra-syndromic differential diagnosis of various forms of caries.
6. Diagnose secondary caries of depulped and non-depulped teeth using basic and additional examination methods.
7. Diagnose blooming caries using basic and additional examination methods.
8. Prescribe general treatment of blooming caries.
9. Prescribe and carry out non-operative treatment of acute initial caries (remineralizing therapy).
10. Prescribe and carry out operative treatment of various forms of caries.
11. Perform application, infiltration, conduction, intraligamentary, subaxial analgesia.
12. Prescribe and carry out a one-session method of treatment of acute deep caries using odontotropic pastes.

13. Prescribe and carry out a two-session method of treatment of acute deep caries using odontotropic pastes.
14. Prescribe physical methods in the complex treatment of caries and non-caries lesions of the teeth according to the indications.
15. Prescribe preventive measures and carry out preventive manipulations to prevent caries.
16. Diagnose non-caries lesions that occur before teeth erupt: hypoplasia, hyperplasia, dental fluorosis, etc.
17. Diagnose non-caries lesions that occur after teeth eruption: traumatic lesions, chemical lesions, enamel erosion, hyperesthesia, increased abrasion, wedge-shaped defect.
18. Carry out teeth whitening by various methods, taking into account the cause of discoloration.
19. Identify errors and complications in the diagnosis and treatment of caries, using basic and additional examination methods, and eliminate them.

### **List of theoretical questions for content module 3 "Pulpit".**

1. Pulpit. Definition. Etiology and pathogenesis. Classification of pulpitis according to E.M. Gofung, KMI (E.S. Yavorska, L.I. Urbanovych, 1964), MKH-10. Concept of reversible and irreversible forms.
2. Causes and clinical manifestations of acute traumatic pulpitis. Justification of the choice of treatment method.
3. Pathomorphology, clinic, diagnosis of acute limited pulpitis.
4. Pathomorphology, clinic, diagnosis of pulp hyperemia .
5. Pathomorphology, clinic, diagnosis of acute diffuse pulpitis.
6. Pathomorphology, clinic, diagnosis of acute purulent pulpitis.
7. Pathomorphology, clinic and diagnosis of chronic fibrous pulpitis.
8. Pathomorphology, clinic and diagnosis of chronic calcifying pulpitis.
9. Pathomorphology, clinic, diagnosis of chronic hypertrophic pulpitis.
10. Pathomorphology, clinic, diagnosis of chronic gangrenous pulpitis.
11. Pathomorphology, clinic, diagnosis of exacerbation of chronic simple pulpitis.
12. Pathomorphology, clinic, diagnosis of exacerbation of chronic gangrenous pulpitis.
13. Differential diagnosis of acute deep caries and chronic diffuse pulpitis.
14. Differential diagnosis of acute purulent pulpitis and acute sinusitis.
15. Differential diagnosis of acute diffuse pulpitis and trigeminal neuralgia.
16. Differential diagnosis of acute limited pulpitis and exacerbation of chronic pulpitis.
17. Differential diagnosis of chronic medium caries and enamel erosion.
18. Differential diagnosis of chronic medium caries and wedge-shaped defect.
19. Differential diagnosis of chronic deep caries and chronic gangrenous pulpitis.
20. Analgesia in the treatment of pulpitis: types, indications. Groups of anesthetics, mechanism of action, comparative characteristics regarding

effectiveness and toxicity. Premedication: concepts, medicinal substances, peculiarities of implementation.

21. Endodontic instruments: classification, ISO standards . Purpose, rules of application.

22. Biological method of treatment of pulpitis. Definition. Indications and contraindications. Sequence and feature of treatment stages. Justification of the choice of medical pastes.

23. Vital amputation: definition, indications, contraindications. The sequence and features of treatment stages. Possible complications.

24. Vital extirpation: definition, indications and contraindications. The sequence and features of treatment stages.

25. Devital extirpation. Definition, indications and contraindications. The sequence and features of treatment stages.

26. Combined method of treatment of pulpitis. Definition, sequence and features of treatment stages.

27. Devital amputation. Definition. Indications and contraindications. Effectiveness of the method. Sequence and feature of treatment stages.

28. Preparation of root canals in the treatment of pulpitis. Mechanical and chemical expansion of root canals. Tools, modern technologies.

29. Methods of instrumental treatment of impenetrable root canals: drugs for chemical expansion, pulp mummification and impregnation of impenetrable root canals.

30. Depophoresis of root canals. Disadvantages and possible complications

31. Choosing a sealer for sealing root canals with pulpitis: groups, properties, indications for use, sealing technique.

32. Methods of sealing root canals in the treatment of pulpitis: the method of the central pin, lateral condensation of gutta-percha, cold and warm vertical condensation of gutta-percha. Errors and complications.

33. Errors and complications in the treatment of pulpitis. Prevention, methods of elimination.

### **List of practical tasks for content module 3 "Pulpit".**

1. Diagnose forms of acute and chronic inflammation of the pulp, which differ in etiology and pathomorphological manifestations, using basic and additional examination methods.

2. Provide emergency care to a patient with acute purulent pulpitis.

3. Prescribe according to the indications and carry out treatment of pulpitis by the method of preserving the vital activity of the pulp, using medicinal substances of different groups in the composition of medical pastes. Write out recipes.

4. Prescribe according to the indications and carry out treatment of pulpitis by the salutary amputation method, using medicinal substances of different groups in the composition of medical pastes. Write out recipes.

5. Prescribe according to the indications and carry out the treatment of pulpitis by the vital extirpation method, using medicinal substances of hemostatic, antiseptic action.

6. Prescribe according to indications and carry out treatment of pulpitis by devital extirpation method.

7. Prescribe according to indications and carry out treatment of pulpitis by devital amputation method, using medicinal substances of different groups in the composition of mummifying liquids and pastes. Write out recipes.

8. Prescribe according to indications and carry out treatment of pulpitis by devital combined method, using medicinal substances of different groups in the composition of mummifying liquids and pastes. Write out recipes.

9. To treat instrumentally impassable root canals, using medicinal products for chemical expansion, pulp mummification and impregnation of impassable root canals.

10. Carry out depophoresis of the root canal, taking into account the shortcomings and possible complications.

11. Seal the canals, differentially choose sealers of different groups for different clinical situations in the treatment of pulpitis.

12. To seal root canals in the treatment of pulpitis using the methods of central pin, vertical, cold and warm lateral condensation of gutta-percha.

13. Identify the causes of errors and complications and ways to eliminate them during root canal filling.

#### **List of theoretical questions for content module 4 "Periodontitis"**

1. Periodontitis. Definition, etiology and pathogenesis. Classification of periodontitis according to I.H. Lukomsky, M.I. Groshikov, S.A. Vaindrukh, MKH-10.

2. Causes of development and clinical manifestations of acute apical drug-induced periodontitis.

3. Causes of development and clinical manifestations of acute apical traumatic periodontitis.

4. Pathomorphology, clinic and diagnosis of acute serous apical periodontitis.

5. Pathomorphology, clinic and diagnosis of acute purulent apical periodontitis.

6. Pathomorphology, clinic and diagnosis of chronic fibrous apical periodontitis.

7. Pathomorphology, clinic and diagnosis of chronic granulating apical periodontitis.

8. Pathomorphology, clinic and diagnosis of chronic granulomatous apical periodontitis.

9. Pathomorphology, clinic, diagnosis of exacerbation of chronic granulating periodontitis.

10. Pathomorphology, clinic, diagnosis of chronic granulomatous apical periodontitis.

11. Pathomorphology, clinic and diagnosis of exacerbation of chronic fibrous apical periodontitis.

12. Differential diagnosis of chronic medium caries and chronic fibrous periodontitis.

13. Differential diagnosis of acute limited pulpitis and acute serous periodontitis.

14. Differential diagnosis of chronic fibrous pulpitis and chronic granulating periodontitis.

15. Differential diagnosis of acute apical purulent periodontitis and exacerbation of chronic periodontitis.

16. Intrasyndromal differential diagnosis of chronic forms of periodontitis.

17. Mechanical and medicinal treatment of root canals in the treatment of apical periodontitis. Modern techniques and tools.

18. Treatment of acute serous apical periodontitis of infectious etiology: principle of treatment, sequence and features of treatment stages.

19. Treatment of acute traumatic apical periodontitis. Features of treatment depending on the type of injury.

20. Treatment of acute medicated apical periodontitis. Sequence and feature of treatment stages, antidote therapy.

21. Treatment of acute apical purulent periodontitis. The sequence and features of the stages. Emergency aid.

22. Treatment of chronic fibrous apical periodontitis. The sequence and features of treatment stages.

23. Treatment of chronic apical granulating periodontitis in one visit: indications, technique. The sequence and features of treatment stages. Selection of filling material and method of root canal filling.

24. Sequence and features of treatment stages of chronic granulomatous apical periodontitis. Methods of influence on the apical focus of infection.

25. Treatment of exacerbation of chronic granulomatous apical periodontitis. The sequence and features of treatment stages.

26. The sequence and features of the stages of treatment of an exacerbation of chronic periodontitis complicated by periostitis.

27. Short-term treatment of chronic apical periodontitis. Indication. The sequence and features of treatment stages.

28. The concept of tooth restoration. Planning the construction of the restoration of vital teeth and teeth after endodontic treatment.

29. Errors and complications in endodontic treatment of apical periodontitis. Prevention, methods of elimination.

30. Methods of sealing root canals in the treatment of pulpitis, periodontitis. Peculiarities of the choice of sealers and the method of obturation of canals with the help of fillers (method of central pin, vertical and lateral condensation of gutta-percha).

31. The use of physical methods in the complex therapy of pulpitis, periodontitis: indications, contraindications, features of the appointment, methods of implementation.

#### **List of practical tasks for content module 4 "Periodontitis".**

1. Diagnose forms of acute and chronic inflammation of apical periodontitis, which differ in etiology and pathomorphological manifestations, using basic and additional examination methods.

2. Carry out intra-syndromal differential diagnosis of various forms of apical periodontitis.

3. Carry out non-syndromic differential diagnosis of various forms of apical periodontitis.

4. Carry out x-ray diagnostics of chronic forms of periodontitis.

5. Conduct a computer tomography analysis of the maxillofacial area.

6. Carry out staged treatment of acute forms of apical periodontitis depending on etiological factors.

7. Provide emergency care to a patient with acute purulent apical periodontitis.

8. Carry out step-by-step treatment of chronic forms of apical periodontitis depending on etiological factors, using different methods of influencing the post-apical focus of infection.

9. Prescribe and carry out treatment of chronic apical periodontitis in one visit, using modern technologies of root canal treatment and filling.

10. To plan and carry out the restoration of vital teeth and teeth after endodontic treatment.

11. To prescribe physical methods in the treatment of various forms of periodontitis: intracanal electrophoresis, depophoresis, UHF therapy, laser therapy, fluororization, d'Arsonvalization.

12. Identify mistakes made in the diagnosis and stages of treatment of periodontitis, carry out manipulations to eliminate them.

### 11. Teaching methods

Teaching methods are proven and systematically functioning methods of interconnected activities of those who teach (teaching methods) and those who study (learning methods), aimed at solving certain educational, educational and developmental tasks in the educational process.

When studying the educational discipline "Therapeutic dentistry", the following teaching methods are used:

- **verbal** (lecture, explanation, story, conversation, instruction);
- **visual** (observation, illustration, demonstration);
- **practical** (various types of exercises, performing graphic works, conducting experiments, practices).
- **explanatory-illustrative** or **information-receptive** , which involve the presentation of ready-made information by the teacher and its assimilation by students;
- **reproductive** , which is based on the performance of various tasks according to the model;
- **method of problem presentation**, which is because the teacher poses a problem and solves it himself, demonstrating the contradictions that characterize the learning process, while the students' task is to control the sequence of presentation of the material, the significance of the evidence, predicting the teacher's next steps; this MN is implemented by training students in problem situations with the aim of successful preliminary preparation for future work in real conditions of practical medical institutions;
- **partially search** or **heuristic** , aimed at mastering individual elements of search activity, for example: the teacher formulates a problem, students - a hypothesis;
- **research** , the essence of which is the teacher's organization of creative research activities of students by posing new problems and problematic tasks.

Teaching methods can also be divided into:

- methods that ensure **perception and assimilation** of knowledge by students (lectures, independent work, instruction, consultation);
- **methods of applying knowledge and acquiring and consolidating abilities and skills** (practical classes, control tasks, working in a clinic, conducting practice);
- **methods of checking and evaluating knowledge, abilities and skills;**
- **methods of encouragement and punishment .**

It should be remembered that the maximum effectiveness of training can be achieved only under the condition of a rational (systemic) combination of various methods.

## 12. Control methods

The general goal of control is subordinated to the main task of ensuring a high theoretical and scientific level of educational work and, therefore, quality training of personnel. The specific purpose of control is to determine the quality of assimilation of educational material, the degree of compliance of the formed competencies with the goals and tasks of educational training disciplines .

**Principles of control** : comprehensive nature, systematicity, purposefulness, objectivity, effectiveness, unity of requirements, constant improvement of all its forms and methods.

Effective functioning of the pedagogical control system requires compliance with certain conditions:

- teachers and students, evaluating the state of educational work, act according to uniform and agreed criteria, the rationale of which is known to everyone from afar ;
- o prices obtained as a result of control are considered non- - violating, not subject to doubt both by those who control and by those who are controlled, since they are based on objective criteria known to both parties ;
- control and its results require publicity so that anyone can carefully study them, draw reasonable conclusions on the basis of this, which encourage active positive work aimed at the necessary adjustment of the educational process

for the control of knowledge , abilities and skills :

- **objectivity** — creation of conditions under which the knowledge , abilities and skills of students would be maximally accurately manifested , putting forward uniform requirements, fair treatment of each student, the inadmissibility of the presence of elements of bias, the desire to find negative facts or impose purely personal views of the supervisor on certain theoretical problems, methodological techniques, etc.; at the same time, it should be remembered that the objectivity of control is incompatible with a liberal attitude to shortcomings and mistakes, superficiality and narrowness in the analysis and assessment of the work being checked;

- **reasonableness of assessments** — their argumentation ;
- **systematicity** — an important psychological factor that contributes to the formation of such qualities as organization and discipline , forms perseverance and focus on goal achievement;

- **an individual and differentiated approach to the assessment of knowledge , abilities and skills** involves the use of such didactic conditions under which psychological tension is reduced, the peculiarities of the student 's nervous system , his character, potential opportunities, abilities, etc. are taken into account, thanks to which the teacher becomes capable as fully as possible , more correctly and objectively in identifying and evaluating the knowledge of each student ;

- **comprehensiveness and optimality** presupposes: firstly , adequacy control of learning goals, that is, the content side of control should control what students were taught and take into account the amount of material that needs to be learned; second, the validity of the control, it should cover the entire scope of knowledge, skills and abilities that is controlled ; Third, reliability — stability of the results, obtained by repeated control after a certain time, as well as the closeness of the results during control by different teachers;

- **the professional orientation** of control, which is determined by the target training of a specialist and thereby contributes to increasing the motivation of the cognitive activity of students — future specialists.

**Forms of control:**

- according to the coverage of students: frontal, individual, paired, group;
- by method of implementation : oral, written;
- according to the method of organization : control by the teacher, mutual control, self-control;
- by the use of teaching aids : control using printed aids, volume aids (models, dummies, simulators, devices), technical aids, computer systems, including those with support for multimedia files;
- by level of standardization : standardized, non-standardized.

Each of the forms of control has its own characteristics and is conditioned by its goal , content , and method and the nature of learning.

An **oral survey** makes it possible to control not only knowledge , but also verbal abilities, helps to correct speech errors . Reproducing the material contributes to its better memorization , active use of scientific concepts, which is impossible without sufficient application of them in speech .

**Pysmov e the survey** helps to find out the level of assimilation of the material, but the possibility of writing off should be excluded and students should be carefully monitored during this survey. Written assignments require a considerable amount of the teacher's time to review.

An integral element of the system of the educational process in higher medical educational institutions of III and IV levels of school accreditation is **testing** as a standardized evaluation method that meets the new goals and objectives of higher medical education and promotes individualization and control of the educational process and is designed to ensure the quality of training of the future doctor.

All forms of control, with their skillful implementation, are accompanied by instructions, advice and recommendations of the teacher to the student. Control in all cases enables the auditee to learn lessons from the inspection of his work and draw correct conclusions for the future.

**Assessment and marking .**

The practical application of any form of pedagogical control ends with evaluations and marks .

**Assessment is** a method and result of establishing the fact of conformity or non-conformity of acquired knowledge and formed abilities and skills learning goals and objectives. The assessment also predicts identification of reasons that hindered learning and means of organizing educational activities to eliminate gaps in knowledge .

**Mark** - numerical and analogue of the assessment and has several rank values.

The basis for assessing the quality of students' knowledge , abilities, and skills is the requirements of programs in academic disciplines , but regardless of the specifics of the subject, the general requirements are as follows :

- understanding and degree of assimilation of the question, completeness, which is measured by the amount of software knowledge about the object being studied;
- depth, which characterizes the set of connections between knowledge - realized by students;
- methodological organization of knowledge;

- familiarization with the main literature of the academic discipline , and at the same time with modern periodical domestic and foreign literature in the specialty;
- the ability to apply theory in practice, to solve situational problems , etc.; operability , that is, the number of situations in which the student can apply his knowledge in practice ;
- familiarization with the history and current state of science and perspectives of its development;
- logic, structure, response style and the student's ability to defend the - proposed scientific and theoretical propositions, awareness, generalization, concreteness;
- flexibility, that is, the student's ability to independently find situations in which knowledge is applied ;
- strength of knowledge.

In the process of pedagogical control, it should be taken into account that :

- it is impractical to control what should be mastered by the student at the level recognition , primary representation or recognition ;
- control should not be used if the teacher is sure that all students will cope with the task 100%, at the same time , sometimes it is appropriate to give such tasks that most students can cope with, because in this way students' faith in their own abilities is stimulated;
- well-organized step-by-step control reduces the need for final control or makes the latter unnecessary at all;
- it is necessary to vary the means of control;
- creation of a calm and friendly atmosphere during the control process contributes to the better work of students and has a positive effect on its results.

the student's **current educational activity is carried out** when mastering each topic of the module by assigning a rating on a 4-point traditional scale, at the end of the module the average rating is calculated, which is converted into points.

**The maximum number of points** for the student's current educational activity is **120 points**.

Assessment of students' independent work, which is provided for in the topic together with classroom work, is carried out during the ongoing control of the topic in the corresponding classroom lesson. The evaluation of topics that are submitted only for independent work and are not included in the topics of classroom training sessions is controlled during the defense of the essay and during the final module control.

### **13. Form of final control of study success**

**The final module control** is carried out upon completion of the study of all topics of the module (content modules) in the last session of the module. Students who have completed all types of work provided for in the curriculum and who have studied the module and scored at least the minimum number of points are admitted to the final examination.

The final module control is standardized and includes control of theoretical and practical training. The theoretical part of the PMK consists of 25 test tasks (2 points each - a total of 50 points) and 1 theoretical question and 2 practical tasks, which are evaluated for 10 points. Practical training is evaluated based on the student's ability to perform a patient examination, differential diagnosis of diseases, establish a diagnosis, reasonably choose a treatment method, perform basic dental manipulations on phantoms (80 points in total). **The final module**

**control** is credited to the student if he scored at least **50** points out of a possible 80. The **total** number of points for each module is 200.

### **Final semester certification**

#### **Compilation of semester final certifications (SPA, exams).**

Students who have fulfilled all the requirements of the curriculum are allowed to take the final certification, and in the individual curriculum (report book) there is a note about admission to the SPA.

The last final module control of the academic discipline subject to SPA is conducted in the form of an exam. For students with a normative (shortened) term of study, the semester final certification is not conducted in the 2nd year of study.

The exam is taken by a commission approved by the order of the rector, consisting of: an examiner, members of the commission - representatives of the dean's office and specialized departments, in the presence of the teacher who last taught in this student group.

#### **The grade for the exam corresponds to the scale:**

Grade "5" - 80-71 points;

Grade "4" - 70-61 points;

Grade "3" - 60-50 points;

Grade "2" - less than 50 points.

The results of the student's completion of the SPA (exam) are recorded in the "Students' Performance Information in the Discipline" and sealed with the signatures of the examiner and members of the commission, after which the results of the SPA are announced to the students.

### **14. Scheme of accrual and distribution of points received by students**

Conversion of a traditional 4-point scale into a multi-point (maximum 120 points) – conversion of the total current success rate for the module – is carried out only after the current class, which precedes the final module control. The conversion is carried out according to the following algorithm:

– the student's average grade on a traditional 4-point scale obtained during current classes belonging to this module is calculated (to the nearest hundredth of a point);

– in order to obtain a converted multi-point total assessment of current success for the module, the average assessment obtained on a traditional 4-point scale must be multiplied by a factor of 24. The exception is the case when the average assessment on a traditional 4-point scale is 2 points. In this case, the student receives 0 points on a multi-point scale;

– the current grade point average is calculated based on the total number of classes in the module, not on the number actually attended by the student.

#### **Correspondence of the average score of the current academic performance according to the traditional one**

#### **4-point scale to the total evaluation of the current success rate for the module**

The minimum converted sum of current success points for all modules of the discipline is **72 points**.

| The average score of the current academic performance on a traditional 4-point scale | Points for current performance after GPA conversion |
|--|---|
| 2.00   | 0   |
| 2.05   | 49  |

|      |     |
|------|-----|
| 2.10 | 50  |
| 2.15 | 52  |
| 2.20 | 53  |
| 2.25 | 54  |
| 2.30 | 55  |
| 2.35 | 56  |
| 2.40 | 58  |
| 2.45 | 59  |
| 2.50 | 60  |
| 2.55 | 61  |
| 2.60 | 62  |
| 2.65 | 64  |
| 2.70 | 65  |
| 2.75 | 66  |
| 2.80 | 67  |
| 2.85 | 69  |
| 2.90 | 70  |
| 2.95 | 71  |
| 3.00 | 72  |
| 3.05 | 73  |
| 3.10 | 74  |
| 3.15 | 75  |
| 3.20 | 77  |
| 3.25 | 78  |
| 3.30 | 79  |
| 3.35 | 80  |
| 3.40 | 82  |
| 3.45 | 83  |
| 3.50 | 84  |
| 3.55 | 85  |
| 3.60 | 86  |
| 3.65 | 87  |
| 3.70 | 89  |
| 3.75 | 90  |
| 3.80 | 92  |
| 3.85 | 93  |
| 3.90 | 94  |
| 3.95 | 95  |
| 4.00 | 96  |
| 4.05 | 97  |
| 4.10 | 98  |
| 4.15 | 99  |
| 4.20 | 101 |
| 4.25 | 102 |
| 4.30 | 103 |

|      |     |
|------|-----|
| 4.35 | 104 |
| 4.40 | 106 |
| 4.45 | 107 |
| 4.50 | 108 |
| 4.55 | 109 |
| 4.60 | 110 |
| 4.65 | 111 |
| 4.70 | 113 |
| 4.75 | 114 |
| 4.80 | 115 |
| 4.85 | 116 |
| 4.90 | 118 |
| 4.95 | 119 |
| 5.00 | 120 |

The result of the final module control is evaluated in points (the traditional 4-point evaluation is not assigned). The maximum number of points of the final modular control is 80 points. The minimum number of points of the final module control, at which the control is considered passed, is 50 points.

The maximum number of points per module is 200 points. The PMK assessment criteria are determined by the department, approved by the cyclic methodical commission on the implementation of the credit-module system of education and brought to the attention of students at the beginning of the study of the discipline (the first lecture and practical session).

#### **Discipline assessment**

The evaluation of the discipline "Therapeutic Dentistry" is given only to students who have passed all the modules of the discipline. According to the decision of the Academic Council, incentive points can be added to the number of points in the discipline for students who have scientific publications or won prizes for participation in Olympiads in the discipline among universities of Ukraine, student conferences, etc. The objectivity of evaluating the educational activity of students must be checked by statistical methods (by the correlation coefficient between the current success rate and the results of the final module control).

The grade for the discipline is issued by the department on a traditional (national) 4-point scale based on the average number of points for all modules provided by the discipline program.

The scale for converting the average number of points for all modules provided by the discipline program into a traditional assessment on the 4-point scale of disciplines and for all departments is the same (according to the table).

#### **Transferring the average number of points for all modules provided by the discipline program into a traditional grade for 4-point scale**

| The average number of points for all modules provided by the discipline program | Traditional assessment for 4-point scale |
|---|--|
| 122 - 149.99  | "3"                                      |
| 150 - 179.99  | "4"                                      |
| 180 - 200   | "5"                                      |

The grade from the discipline is not converted from the ECTS grade.

The grade for the discipline is issued to the student no later than on the next working day after the last final module control.

If the student does not retake at least one final module test before the beginning of the new semester, he receives a traditional grade of "2" and an ECTS grade of "F" for the discipline, which is the basis for expelling the student.

### **15. Methodological support**

1. Working curriculum of the discipline;
2. Handbooks for students studying the discipline;
3. Plans of lectures, practical classes and independent work of students;
4. Methodological developments, theses, texts, multimedia presentations of lectures on the discipline;
5. Methodical guidelines for independent work of students in practical classes, including material for theoretical preparation and indicative maps for mastering professional skills and abilities, tests for self-control in accordance with the topics of practical classes.
6. Instructional materials for extracurricular independent work on topics assigned for independent study.
7. Theoretical questions and practical tasks to control the assimilation of content modules;
8. Materials for final module tests (examination tickets including 25 test tasks, 1st theoretical and 2nd practical tasks and evaluation criteria).
9. Examination tickets for SPA and state integrated examination
10. Methodological recommendations for teachers for practical classes according to the thematic plan.

### **16. Recommended literature**

#### **Basic (basic)**

1. Therapeutic stomatology: Textbook for students of the stomatological faculty of higher medical educational institutions of IV level of accreditation / Ed. Anatoliy Nikolishina - Ed. 2nd, corrected and supplemented. – Vinnytsia: Nova Kniga, 2012. – 680 p.
2. Therapeutic dentistry: In 4th volume — Volume 2. Caries. Pulpit. Periodontitis. Oral sepsis: Textbook for med. Level III-IV universities. accreditation / Under the editorship A.V. Borysenko - K.: Medicine, 2010. – 560 p.
3. Therapeutic stomatology: textbook: In 4 vol. - Vol. 4. Diseases of the mucous membrane of the oral cavity / M.F. Danylevskiy, A.V. Borysenko, M.Yu. Antonenko and others. - K.: Medicine, 2010. - 640 p.
4. Therapeutic stomatology: textbook: In 4 vol. - Vol. 3. Periodontal disease / M.F. Danylevskiy, A.V. Borysenko, A.M. Politun et al. – K.: Medicine, 2008. – 616 p.

#### **Auxiliary**

1. Batig V.M. Systematized presentation of the content of the educational discipline "Therapeutic Dentistry". Tutorial. / V.M. Batig, V. I. Struk. - Chernivtsi, 2016. - 227 p.
2. Belikova N.I., Petrushanko T.O., Belikov O.B. Principles of biomechanics of splinting of rhombic teeth. - K.: NVP "Interservice" LLC, 2016. - 186 p.
3. Beloklytskaya G.F., Volynskaya T.B. The alphabet of manual scaling. - K.: "KIT" publishing house, 2011. - 68 p.

4. Borysenko A.V. Caries. Pulpit Periodontitis: textbook / A.V. Borysenko. - K.: VSY "Medicine", 2011. - 520 p. – (Secrets of therapeutic dentistry).
5. Borysenko A.V. Secrets of caries treatment and restoration of teeth / A.V. Borysenko - M.: Book Plus, 2005. - 527 p.
6. Borysenko A.V., Antonenko M.Yu., Sidelnikova L.F. Practical periodontology / Scientific and methodological edition. - K.: "Doctor-Media" LLC, 2011. - 472 p.
7. Borysenko A.V. Periodontal diseases: textbook. manual / A.V. Borysenko. - K.: VSY "Medicine", 2013. - 456 p. - (Secrets of therapeutic stomatology).
8. Borovsky E. V. Therapeutic stomatology. - M.: MIA, 2011. – 840 p.
9. Branch medical and economic standard for providing dental care at I, II and III levels: Ambulatory care / [K.M. Kosenko, Yu.M. Bakhurinskyi, V.Ya. Skiba and others]. – Odesa: Astroprint, 2000. – 384 p.
10. A.P. Groholsky Dental deposits: their influence on the teeth, periodontal tissues and the organism / A.P. Groholsky, N.A. Kodola, T.D. centile - K.: Zdorovya, 2000. - 160 p.
11. Danylevskyi M.F. Diseases of the mucous membrane of the oral cavity / M.F. Danylevskyi, O.F. Nesyn, Z.I. Rich - K., 1998. - 408 p.
12. Dermatostomatitis / G.S. Chuchmai, L.O. Tsvih, S.S. Riznyk, B.S. Hrynyk - Lviv, 1998. - 136 p.
13. Additional examination methods in dentistry: a study guide / Hasiuk N.V., Chernyak V.V., Klitynska V.V., Borodach V.O. etc. – Ternopil, 2017. – 120 p.
14. Zabolotnyi T.D., Borysenko A.V., Markov A.V., Shilivskyi I.V. Generalized periodontitis. - Lviv: GalDent, 2011. - 240 p.
15. Zabolotny T.D., Borysenko A.V., Pupin T.I. Inflammatory periodontal diseases. - Lviv: GalDent, 2013. - 206 p.
16. Periodontal diseases: atlas / [N.F. Danylevsky, E.A. Magid, P.A. Mukhin and others] / Ed. N.F. Danylevsky. - 3rd ed., Moscow: Med. inform. agency, 1998. – 320 p.
17. Koval N.Y., Nesyn A.F., Koval E.A. Diseases of the lips. Clinical picture. Diagnostics. Differential diagnosis. Treatment Prevention. - K.: Medicine, 2013. - 344 p.
18. Kovalev E.V. Examination of the patient and diagnosis of odontopathology in the clinic of therapeutic dentistry: educational and methodological manual / E.V. Kovalev, I.Ya. Marchenko, M.A. Shundrik – Poltava, 2005. – 124 p.
19. Kovalev E.V. Periodontitis: study guide / E.V. Kovalev, M.A. Shundryk, I.Ya. Marchenko. – Poltava, 2004. – 161 p.
20. Kovalev E.V. Pulpit. Pathomorphology. Clinic. Treatment: education. manual / E.V. Kovalev, V.M. Petrushanko, A.I. Sydorova. – Poltava, 1998. – 119 p.
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### **17. Information resources**

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