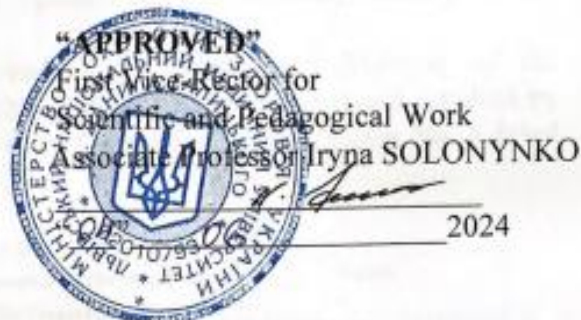


DANYLO HALYTSKY LVIV NATIONAL MEDICAL UNIVERSITY

Department of Therapeutic Dentistry



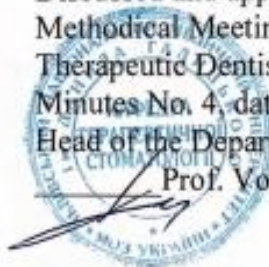
**SYLLABUS  
of the subject  
SD 3.3**

**"Therapeutic dentistry. Diseases of oral mucosa "  
Individual profile course of choice "Surgical Dentistry"**

**Second (master's) level of higher education  
Field of Knowledge 22 "Healthcare"  
Specialty 221 "Dentistry"  
Faculty, year: Dentistry, 5<sup>th</sup> year**

Discussed and approved at the  
Methodical Meeting of the Department of  
Therapeutic Dentistry  
Minutes No. 4, dated 16 April 2024  
Head of the Department  
Prof. Volodymyr ZUBACHYK

Certified by the Specialized Scientific and  
Methodical Board for Dental Subjects  
Minutes No. 3, dated 17 April 2024  
Chair of the Profile Methodical  
Board  
Prof. Volodymyr ZUBACHYK



The syllabus of the subject «Therapeutic dentistry. Diseases of oral mucosa» is developed at the Department of Therapeutic Dentistry of Danylo Halytsky Lviv National Medical University for the 5<sup>th</sup> year students of the Dentistry Faculty in the Specialty 221 Dentistry.

The syllabus is discussed and approved at the Methodical Meeting of the Department of Therapeutic Dentistry (Minutes No. 4 dated 16 April 2024) and certified by the Specialized Scientific and Methodical Board for Dental Subjects (Minutes No. 3 dated 17 April 2024)

**Changes and additions to the syllabus in the 2023-2024 academic year:**

<b>№</b>	<b>Content of changes (additions)</b>	<b>Minutes of the meeting of the Department, date</b>	<b>Notes</b>

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Chair of the Department of Therapeutic Dentistry  
DMSci, Prof. Zubachyk, V.M.

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*Signature*

## **Introduction**

The program for fifth-year students of the Faculty of Dentistry is made in accordance with the draft Standard of Higher Education of Ukraine (hereinafter - the Standard) of the second (master's) level of higher education 22 "Health", specialty 221 "Dentistry" discussed at XIII All-Ukrainian scientific-practical conference with international participation "Current issues of quality of medical education" (May 12-13, 2016, Ternopil) and a sample curriculum for training specialists of the second (master's) level of higher education in the field of knowledge 22 "Health" in higher educational institutions of the Ministry of Health of Ukraine in the specialty 221 "Dentistry", educational qualification "Master of Dentistry", professional qualification "Dentist", approved by the Ministry of Health of Ukraine 26.07.2016.

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

According to the curriculum of medical practice for 5th year students of the Faculty of Dentistry is provided in the case when the student has acquired knowledge of basic clinical disciplines (propaedeutics of therapeutic dentistry, therapeutic dentistry, propaedeutics of pediatric therapeutic dentistry, prevention of dental diseases, pharmacology). Medical practice is carried out by involving students as an assistant to a dentist in the therapeutic department of a dental clinic. Medical practice in therapeutic dentistry is an integral part of therapeutic dentistry - a discipline whose methods are aimed at maintaining the dental health of the human oral cavity, prevention of periodontal disease and oral mucosa. Passing medical practice involves mastering the theoretical material on the peculiarities of the work of a dentist basic manipulations and their practice under the supervision of the head (in the form of practical classes and consultations); independent work of the student in dental departments and consolidation of the received knowledge and skills in the form of independent shifts, preparation for practical employment, mastering of practical skills, filling of the basic reporting documentation, individual work and preparation for final control of knowledge.

**The subject** of medical practice is the performance of dental manipulations, covering the full range of preventive work of the dentist, and medical dental manipulations of the assistant physician-dentist and dentist, based on the etiology, pathogenesis, clinical manifestations of dental and periodontal disease, oral mucosa pathology, methods of their treatment, as well as national and individual preventive measures to prevent the most common diseases.

**Interdisciplinary links:** medical practice for 5th year students of the Faculty of Dentistry is provided in the case when the student has acquired knowledge of human anatomy, histology, cytology and embryology, pathological anatomy, biological chemistry, microbiology, virology and immunology, pathomorphology, pathophysics pharmacology, internal medicine, sociology, as well as the main clinical disciplines (propaedeutics of therapeutic dentistry, therapeutic dentistry, propaedeutics of pediatric therapeutic dentistry, prevention of dental diseases), with which the program of medical practice is integrated. In turn, the practice forms the basis for further study by students of the disciplines of professional training - therapeutic dentistry, which involves integration "vertically" and the formation of skills to apply knowledge in the process of further study and in professional active

**DESCRIPTION OF THE CURRICULUM OF DISCIPLINE  
«Therapeutic dentistry» (5 course)**

**14.01.22 specialty "Dentistry", qualification - dentist**

<b>Structure training discipline</b>	<b>the number of credits of hours</b>			<b>Year of study Semester</b>	<b>Type of controle</b>	
	<b>Total</b>	<b>Lecture classes</b>				<b>OUT OF CLASS WORK</b>
		<b>lectures</b>	<b>practical training</b>			
Diseases of the oral mucosa <b>Content module</b> Differential diagnosis, current treatment and prevention of major dental diseases	6 credits ECTS/ 180 hours.		90 hours.	90 hours.	V cours, IX-X semester	test

### **The purpose and objectives of the course**

The main purpose of the discipline "Therapeutic dentistry" is to prepare students to work in the clinic, which is to train a dentist who can diagnose and treat diseases of oral mucosa and dental disease.

The ultimate goals of discipline "Therapeutic dentistry" is set on the basis of EPP preparation of doctor on specialty "Dentistry". Description objectives formulated through ability as targets. On the basis of the ultimate goals scored defined specific targets in the form of certain skills, targets, providing the ultimate goal of the discipline.

#### ***The ultimate goals of discipline:***

- know the primary lesion of the oral mucosa;
- be able to diagnose infectious diseases;
- assist in allergic lesions and exogenous intoxications.

### **The program of the course**

According to the Law of Ukraine "On education" reform of higher medical education in Ukraine, a new curriculum and program of discipline "Therapeutic dentistry" provides training educational qualification level "specialist" qualification "dentist", specialty 7.110106 "Dentistry" higher Initial medical institutions of Ukraine the fourth level.

Therapeutic dentistry as basic dental discipline. The task of therapeutic dentistry. Relationship with theoretical therapeutic dentistry, general dental and clinical disciplines.

**PLAN OF STUDIES**  
**Plan of practical lessons**  
**in discipline „ THERAPEUTIC DENTISTRY” for 5- year**  
**English-medium students, 2024-2025**  
**Individual profile course of your choice “Surgical**  
**Dentistry”**

**„Differential diagnosis, modern methods of treatment and prevention of major dental diseases”– 6 credits (180 hours): practical lessons – 90 hours, out of class work – 90 hours.**

The me №	Topic of the lesson	Hours
1.	Structure of oral mucosa. Anatomy, histology, physiology of different parts of oral mucosa and its clinical importance. Anatomical-physiological peculiarities of the mucosa of the tongue. Protective mechanisms and factors of oral mucosa, their role in the development of oral pathology. Saliva, its composition and properties. Microorganisms of oral cavity. Peculiarities of clinical examination of patients with oral mucosal pathology. Primary and secondary morphological elements of oral mucosal lesions. Special and laboratory methods of examination. Medical documentation.	6
2.	Classification of oral mucosa pathology. Mechanical and Chemical injury of oral mucosa. Leukoplakia. Etiology, clinic, differential diagnosis, treatment. Physical injury of oral mucosa. Galvanic stomatitis. Radiation sickness. Peculiarities of emergency in Radiation trauma. Prophylaxis of Radiation mucositis in radiation therapy.	6
3.	Viral infections of oral mucosa. Acute herpetic stomatitis, herpes zoster, chronic herpes, warts. Symptomatic viral infections of oral mucosa. Oral manifestations in AIDS, influenza, measles, chicken pox, foot-and-mouth disease. Clinical manifestations, treatment and prevention. Bacterial diseases with alteration of oral mucosa. Classification, etiology, pathogenesis, clinic, differential diagnosis, treatment. Oral manifestations of syphilis and Tuberculosis in oral mucosa. Diseases caused by fungi and protozoa. Clinic, differential diagnosis, treatment.	6
4.	Allergic reactions, general characteristic. Reactions of immediate hypersensitivity. Anaphylactic shock, Quincke’s oedema, nettle-rash. Clinic, differential diagnosis, treatment. Cell-mediated immunity (delayed hypersensitivity reactions). Recurrent stomatitis with formation of oral aphtha, allergic contact stomatitis, Exudative Multiforme Erythema.	6
5.	Oral manifestations of immune-mediated dermatologic diseases. Pemphigus, pemphigoid. Lichen planus. Lupus erythematosus.	6
6.	Oral manifestations of gastrointestinal, cardiovascular, endocrine, and hematologic diseases.	6
7.	Tongue disorders. Neurological tongue diseases. Classification. Etiology, clinic, diagnosis, differential diagnosis. Treatment, prevention. Lip lesions (cheilitis). Classification. Etiology, clinic, diagnosis, differential diagnosis. Treatment, prevention.	6

8.	Oral pre-malignancy. Clinic. Diagnostic. Treatment. Prophylaxis. Mistakes and complications in diagnosis and treatment of oral mucosa pathology. Physical methods in complex treatment of oral mucosa pathology. Peculiarities of hygiene in oral cavity.	6
9.	Ergonomics. Aim and tasks of Ergonomics. Instructions on safety measures during the work. Clinical anatomy and histology of the dental hard tissues. Physiology of the dental hard tissues. Tooth embryogenesis.	6
10.	Modern aspects of etiology and pathogenesis of dental caries. Diagnosis, treatment, and prevention of initial stage of caries. Treatment of the caries and non-carious defects. Peculiarities of teeth restoration. Rubber-dam. Post-systems, inlays, veneers in restorative treatment.	6
11.	Modern filling materials. Composites. Glass-ionic cements. Compomers. Cermets. Enamel-dentin adhesives. Patient's treatment. Treatment of the caries and non-carious defects. Peculiarities of teeth restoration. Rubber-dam. Post-systems, inlays, veneers in restorative treatment.	6
12.	Endodontics. Main principles. Morphological aspects (roots canal anatomy). Clinic and diagnostic of the pulpitis. Principles of endodontic treatment, modern endodontic instrumentation, its classification. Principles of diagnostic, treatment, and prevention of the apical periodontitis. Endo-periodontal surgery. Practice of practical skills.	6
		6
13.	Anatomical-morphological and physiological peculiarities of the periodontium. Complex examination of the patients with periodontal disease. Modern look on etiology and pathogenesis of the periodontal disease. Classification of periodontal diseases. Main syndromes of periodontitis. Clinical-morphological peculiarities of the main stages of generalized periodontitis.	6
14.	Complex treatment and prevention of periodontal disease. Organization of patients care in periodontal pathology. Patient's treatment.	6
15.	Pharmacodynamics of the medications, which are used in therapeutic dentistry. Prescriptions. Radiological diagnosis of the main oral diseases. Physiotherapeutic methods in treatment of main oral diseases.	6
All together		90

## **The purpose and objectives of the discipline**

**1.1. The purpose** of medical practice is to test and consolidate the knowledge and practical skills of a dentist, obtained by students in accordance with the draft Standard of Higher Education of Ukraine of the second (master's) level of higher education 22 "Health Care", specialty 221 "Dentistry".

**1.2. The main objectives** of the practical training are to be able to conduct the examination of the dental patient, to study the main syndromes and symptoms, to formulate the initial diagnosis; The ability to analyse the results of the examination of the patient and conduct a differential diagnosis, to make a residual diagnosis of the main diseases, Determine the nature of treatment in the clinic of therapeutic dentistry, identify different clinical variants and complications of the most widespread diseases, conduct medical examination of patients.

**1.3 Competences and learning outcomes**, the formation of which is facilitated by the discipline (relationship with the normative content of training of higher education, formulated in terms of learning outcomes in the Standard). According to the requirements of the Standard, the practice "Industrial medical practice in therapeutic dentistry" provides students with the acquisition of competencies:

- **Integral:** The ability to solve complex problems and problems in the field of health care in the specialty "Dentistry" in a professional activity or in the learning process, which involves research and / or innovation and is characterized by uncertainty of conditions and requirements.

- **General:**

1. Ability to abstract thinking, analysis and synthesis; ability to learn and be modernly trained.
2. Knowledge and understanding of the subject area and understanding of the profession.
3. Ability to apply knowledge in practical situations.
4. Ability to communicate in the state language both orally and in writing.  
Ability to communicate in another language.
5. Skills in the use of information and communication technologies.
6. 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, pose and solve problems.
9. Ability to choose a communication strategy.
10. Ability to work in a team.
11. Interpersonal skills.
12. Ability to act on the basis of ethical considerations (motives).
13. Skills for safe activities.
14. Ability to evaluate and ensure the quality of work performed.
15. The desire to preserve the environment.

- **Special:**

1. Collection of medical information about the patient's condition.
2. Evaluation of laboratory and instrumental research results.
3. Establishing a clinical diagnosis of dental disease.



4. Diagnosis of emergencies.
5. Planning and implementation of measures for the prevention of dental diseases.
6. Determining the nature and principles of treatment of dental diseases.
7. Determining the necessary mode of work and rest, diet in the treatment of dental diseases.
8. Performing medical and dental manipulations.
9. Treatment of major dental diseases.
10. Assessment of the impact of the environment on the health of the population (individual, family, population).
11. Keeping medical records.
12. Processing of state, social and medical information.
13. Ability to organize and conduct a screening examination in dentistry.
14. Ability to maintain normative medical documentation.
15. Processing of state, social and medical information.
16. Ability to organize and carry out rehabilitation measures and care for patients with diseases of the oral cavity.
17. The ability to legally support one's own professional activity.
1. The ability to provide pre-medical care according to the protocols of tactical medicine.

- *Professional competences of the specialty (FC):*

1. Ability to collect medical information about the patient and analyze clinical data.
2. Ability to interpret the results of laboratory and instrumental research
3. Ability to diagnose: determine preliminary, clinical, final, accompanying diagnosis, emergency conditions.
4. Ability to plan and carry out measures for the prevention of diseases of the organs and tissues of the oral cavity and maxillofacial region.
5. The ability to design the process of providing medical care: to determine the approaches, plan, types and principles of treatment of diseases of the organs and tissues of the oral cavity and maxillofacial region
6. The ability to determine a rational regimen of work, rest, and diet in patients in the treatment of diseases of the organs and tissues of the oral cavity and maxillofacial region.
7. The ability to determine the management tactics of patients with diseases of the organs and tissues of the oral cavity and maxillofacial region with concomitant somatic diseases
8. Ability to perform medical and dental manipulations.
9. The ability to treat the main diseases of the organs and tissues of the oral cavity and maxillofacial area.
10. Ability to organize and carry out medical evacuation measures.
11. Ability to determine tactics, methods and provision of emergency medical assistance.
12. Ability to organize and conduct a screening examination in dentistry.
13. The ability to assess the impact of the environment on the state of health of the population (individual, family, population).
14. Ability to maintain normative medical documentation.
15. Processing of state, social and medical information.
16. Ability to organize and carry out rehabilitation measures and care for patients with diseases of the oral cavity and MFS
17. The ability to legally support one's own professional activity.
18. Ability to provide pre-medical care according to the protocols of tactical medicine.

**Matrix of competences of the educational component  
Individual profile course of practical training “Prosthetic dentistry”**

<b>Program competencies</b>	Individual profile course of practical training "Prosthetic dentistry"
<b><i>General competences</i></b>	
<b>ZK 1 Ability to abstract thinking, analysis and synthesis.</b>	+
<b>GC 2.</b> Ability to learn and master modern knowledge.	+
<b>GC 3</b> Ability to apply knowledge in practical activities.	+
<b>GC 4</b> Knowledge and understanding of the subject area and understanding of professional activity.	+
<b>GC 5</b> Ability to adapt and act in a new situation.	+
<b>GC 6</b> Ability to make informed decisions.	+
<b>GC 7</b> Ability to work in a team.	+
<b>GC 8</b> Interpersonal skills.	+
<b>GC 9</b> Ability to communicate in the state language both orally and in writing;	+
<b>GC 10</b> Ability to communicate in a foreign language.	+
<b>GC 11</b> Skills in using information and communication technologies.	+
<b>GC 12</b> Determination and persistence in relation to assigned tasks and assumed responsibilities.	+
<b>GC 13</b> The ability to act socially responsibly and consciously.	+
<b>GC 14</b> The desire to preserve the environment	+
<b>GC 15</b> The ability to act on the basis of ethical considerations	+
<b><i>Professional competences</i></b>	
<b>PC 1</b> Ability to collect medical information about the patient and analyze clinical data.	+
<b>PC 2</b> The ability to interpret the results of laboratory and instrumental research.	+
<b>PC 3</b> Ability to diagnose: determine preliminary, clinical, final, concomitant diagnosis, emergency conditions.	+
<b>PC 4</b> The ability to plan and carry out measures for the prevention of diseases of the organs and tissues of the oral cavity and maxillofacial area.	+
<b>PC 5</b> The ability to design the process of providing medical care: to determine the approaches, plan, types and principles of treatment of diseases of the organs and tissues of the oral cavity and maxillofacial area.	+
<b>PC 6</b> The ability to determine a rational regimen of work, rest, and diet in patients in the treatment of diseases of the organs and tissues of the oral cavity and maxillofacial area.	+
<b>PC 7</b> The ability to determine the management tactics of patients with diseases of organs and tissues of the oral cavity and maxillofacial area with concomitant somatic diseases.	+
<b>PC 8</b> Ability to perform medical and dental manipulations.	+
<b>PC 9</b> The ability to treat the main diseases of the organs and	+

tissues of the oral cavity and maxillofacial area.	
<b>PC 10</b> Ability to organize and carry out medical evacuation measures.	-
<b>PC 11</b> Ability to determine tactics, methods and provision of emergency medical assistance.	-
<b>PC 12</b> Ability to organize and conduct a screening examination in dentistry.	-
<b>PC 13</b> The ability to assess the impact of the environment on the state of health of the population (individual, family, population).	-
<b>PC 14</b> Ability to maintain regulatory medical documentation.	+
<b>PC 15</b> Processing of state, social and medical information.	-
<b>PC 16</b> Ability to organize and carry out rehabilitation measures and care for patients with diseases of the oral cavity and OMF.	-
<b>PC 17</b> The ability to legally secure one's own professional activity.	-
<b>PC 18</b> The ability to provide pre-medical care according to the protocols of tactical medicine.	-

**Detailing of competencies according to NQF descriptors in the form of "Competence Matrix".**  
**Competence matrix**

<b>№</b>	<b>Competence</b>	<b>Knowledge</b>	<b>Skills</b>	<b>Communication</b>	<b>Autonomy and responsibility</b>
<b>Integral competence:</b>					
Ability to solve complex problems and problems in the field of health care in the specialty "Dentistry" in a professional activity or in the learning process, which involves research and / or innovation and is characterized by uncertainty of conditions and requirements					
<b>General competencies</b>					
1.	Ability to abstract thinking, analysis and synthesis; ability to learn and be modernly trained.	Know the current trends in the industry 22 "Health" and the indicators that characterize them .	Be able to analyze professional information, make informed decisions, acquire modern knowledge to improve the activities of a dentist. Be able to analyze professional information, make informed decisions, acquire modern knowledge to improve the activities of a dentist.	Establish appropriate communication links to achieve goals.	Be responsible for the timely acquisition of modern knowledge. Lifelong learning.
2.	Knowledge and understanding of the subject area and understanding of the profession.	Know the features of the professional activity of a dentist.	Be able to carry out professional activities that require updating and integration of knowledge.	To form a communication strategy in professional activity.	Be responsible for continuous professional development with a high level of autonomy.
3.	Ability to apply knowledge in practical situations.	Know the methods of implementing knowledge in solving practical problems of the professional activity of a dentist.	Be able to use professional knowledge to solve practical problems.	Establish links with the subjects of practical activities.	Be responsible for the validity of decisions.

4.	Ability to communicate in the state language both orally and in writing. Ability to communicate in another language.	Know the state language, including professional orientation. Know a foreign language at a level sufficient for professional communication.	Be able to use the state language and a foreign language for professional activities and communication.	Use language skills in the professional activity of a dentist.	Be responsible for the continuous improvement of knowledge of state and foreign languages.
5.	Skills in the use of information and communication technologies.	Have modern knowledge in the field of information and communication technologies used in professional activities.	Be able to use information and communication technologies in the professional field, which requires updating and integration of knowledge.	Use information and communication technologies to establish communication links.	Be responsible for the continuous development of professional knowledge and skills.
6.	Ability to search, process and analyze information from various sources.	Know the algorithm for searching, processing and analyzing information from various sources in the specialty 221 "Dentistry".	Be able to use the algorithm of search, processing and analysis of information from various sources in the professional activity of a dentist.	Use up-to-date information to establish communication links.	Be responsible for the continuous search, processing and analysis of information from various sources in order to improve professional activities.
7.	Ability to adapt and act in a new situation;	Know the methods of implementing knowledge in solving practical	Be able to use professional knowledge to adapt and act in a	Establish links with the subjects of practical activities.	Be responsible for the quality of professional tasks in the new
	ability to work autonomously .	problems in new conditions.	new situation.		situation.
8.	Ability to identify, set and solve problems.	Know how to implement the knowledge in identifying, formulating and solving the problems of professional activity of a dentist.	To be able to use knowledge to identify, set and solve problems of professional activity.	Establish links with the subjects of practical activities in order to identify, set and solve problems of professional activity.	Responsibility for the validity of the decisions made on the solution of problems of professional activity.

9.	Diligence in selecting a communication strategy.	Know how to implement a strategy for communicating with patients and colleagues.	Be able to use the knowledge to choose a strategy for communication with patients and colleagues.	Be able to use the knowledge to choose a strategy for communication with patients and colleagues.	Be responsible for choosing a communication strategy with patients and colleagues.
10.	The willingness to work as part of a team.	Know how to interact collectively when working in a team.	Know how to work together productively during teamwork.	Formulate the capacity for professional communication during teamwork.	Be personally responsible for contributing to the team's work.
11.	Interpersonal skills and interpersonal communication.	Know how to communicate with colleagues and patients in an interpersonal way.	Be able to use the knowledge to choose a communication strategy for inter-relationship interaction.	Formulate a communication strategy in professional activities.	Be responsible for continuous professional development.
12.	The commitment to act on the basis of ethical considerations (motives).	Know the moral and ethical principles of the medical specialist and the rules of professional subordination.	Use in practice the moral and ethical principles of the medical specialist and the rules of professional subordination.	To respect the moral and ethical principles of the medical professional and the rules of professional subordination during professional activities.	To be personally responsible for upholding the moral and ethical principles of the medical specialist and the rules of professional subordination.
13.	Skills to carry out safe work.	The ability to assess the level of risk in the performance of professional tasks.	Be able to carry out professional activities in compliance with safety regulations.	Ensure that professional work is carried out in a professional manner work in compliance with safety rules.	To be personally responsible for complying with safety rules when carrying out professional tasks.
14.	The performance of the work must be evaluated and the quality of the work carried out must be ensured.	The competence to assess and ensure quality in the performance of professional tasks.	Know the methods for assessing performance indicators.	Establish communication links to ensure the quality of work.	Be personally responsible for ensuring the quality of professional performance professional activity.

15.	A commitment to the preservation of the natural environment.	The capacity to assess the state of the environment.	To be able to analyse indicators of the quality of the environment, to take part in measures to preserve and improve it.	Use communicative communication to improve efficiency and conservation of the environment. Environmental protection.	To be personally responsible for the environmental protection rules in the performance of professional tasks.
<b>№</b>	<b>Competence</b>	<b>Knowledge</b>	<b>Skills</b>	<b>Communication</b>	<b>Autonomy and responsibility</b>
<i>Special competences</i>					
1.	Gathering medical information about the patient's condition.	Know the algorithm for collecting medical information about the patient's condition by the dentist at the therapeutic appointment.	Know how to describe and identify the main problems, assess the general condition and determine the patient's dental status.	Adhere to ethics, bioethics and deontology during the anamnesis.	To be responsible for the good performance of the tasks assigned.
2.	Evaluating the results of	Structure of hard tissues of the	Evaluate the condition of the	Be able to explain and	Be responsible for the

	laboratory and instrumental investigations.	tooth, pulp, periodontium, organs and mucous membrane of the cavity, changes in them, associated with age and pathological conditions. Clinical and anatomical features of the structure of teeth, signs of relevance to the appropriate slit, sides. Biochemical, microbiological composition of plums, oral fluid, their biophysical properties and remineralizing potential. Methods for determining the length of the root canal.	teeth, periodontium, organs and mucous membrane of the mouth. Determine whether the teeth belong to the same group, side (right, left), upper or lower slit. Evaluate and interpret the results of biochemical, biophysical, microbiological examinations of the oral mucosa and its remineralising properties. Evaluate the color, the condition of the tooth tissue in normal conditions, demineralization , etc. To determine the length of the root canal using various methods.	explain the changes in the condition of the teeth, periodontium, organs and mucous membranes of the mouth, the mucosa of the mouth and the oral cavity to the patient and colleagues.	correctness and accuracy of the evaluation of laboratory and instrumental methods of investigation.
3.	Establishing a clinical diagnosis of a dental disease.	1. Have specific knowledge of the diagnostics of dental diseases specified by the standard of higher education. 2. Classification of carious	1. Identify and identify the main clinical symptoms and syndromes, using the patient's history, examination data, knowledge	Establish communication links to ensure the quality of the diagnostic process.	Be responsible for the results of the diagnosis of dental disease. Be responsible for providing the appropriate knowledge and skills.



		<p>diseases according to Blek.</p> <p>3. Clinical features of the anatomic and histological structure of the teeth.</p> <p>4. Topography of dental tissues and structures.</p> <p>5. Dental formulas.</p>	<p>of the human body, its organs and systems, and establish the initial clinical diagnosis of the dental disease.</p> <p>2. Determine whether the carious lesions belong to a certain class according to Blek.</p> <p>3. Evaluate the extent of carious damage, dental tissues condition.</p> <p>4. Mark the teeth with different dental formulas.</p>		
4.	Diagnosis of non-critical conditions.	Diagnosis of non-critical conditions at a dental appointment.	Have specialised knowledge of the diagnosis of non-injurious conditions as defined by the Higher Education Standard.	Perform diagnosis of non-injurious conditions according to standard schemes.	Determine tactics for emergency medical care according to the algorithm.
5.	Planning and carrying out preventive measures against dental diseases.	<p>To know the principles of prevention of dental diseases and their complications.</p> <p>Knowledge of the basic principles of hygienic education and education of the population.</p>	<p>Be able to plan measures to prevent the spread of dental diseases and evaluate their effectiveness.</p> <p>Plan primary and secondary prevention of the most common dental diseases in children of different ages.</p>	Be able to explain and substantiate the principles of prevention of dental diseases and their complication to the patient, colleagues.	To be responsible for the correctness and accuracy of dental disease prevention measures.

			Carry out prophylactic measures for the main dental diseases.		
6.	The nature and principles of the treatment of dental diseases.	Knowledge of algorithms for determining the nature and principles of treatment of dental diseases of the therapeutic patients.	To be able to practically use treatment protocols to determine the nature and principles of the treatment of therapeutic patients.	Be able to explain and justify the choice of treatment principles for dental diseases to the patient, colleagues.	To be responsible for the correctness and accuracy of the treatment of dental diseases.
7.	Identification of the necessary working and resting regimen, diet in the treatment of dental diseases.	To commit to healthy lifestyles, personal hygiene and to implement them in health care practices.	To be able to analyse the health status of a given population, based on official data, by comparing it with statistical averages. Based on data on environmental conditions, foodstuffs, leisure and work regime, the health status of the contingent, identify the link between them.	Establish communicative links to ensure a good working and rest time regime, diet in the treatment of dental diseases.	To be responsible for ensuring that you have the appropriate knowledge and skills for the work and rest time regime, diet in the treatment of dental diseases.
8.	Performing medical and dental procedures.	1. Methods and techniques for the treatment of various classes of cavities according to Black. 2. Composition, properties, indications for the use of filling materials for permanent and	1. Repeat the treatment of carious cavities in different ways with classic and minimally invasive techniques. 2. Fill carious cavities of grades I to V according to	Be able to select methods and carry out individual treatment steps in a well-grounded manner.	To be responsible for the acquisition of relevant knowledge and skills.

		temporary fillings, treatment pads and techniques for their use. 3. Clinical peculiarities of the structure of the cavity of the tooth and root canals. 4. Composition, properties, indications for the use of root canal filling materials (sealers and fillers).	Black with materials of different groups. 3. Trepanning of crowns of teeth of different groups, amputation, pulp extirpation, removal of cavities, instrumental and medicamentous treatment of root canals and their filling by different methods and groups of sealers for the purpose.		
9.	The treatment of basic dental diseases.	Knowledge of protocols for the treatment of dental diseases of patients in the therapeutic area with odontopathology.	To be able to practically apply treatment protocols in dental patients with a therapeutic profile.	Know how to explain and justify the treatment of dental diseases to the patient, colleagues.	Be responsible for the treatment of general dental patients with odontopathology
				accurately.	

### Learning outcomes:

Integral and final programme learning outcomes, which are shaped by the discipline: Completion of "medical practice" forms the basis for the formation of further practical part of the program results of training in accordance with the standard of higher education of Ukraine for undergraduate training of specialists of the second (master) level specialty 221 "Dentistry:

1. Gather information about the general state of the patient, assess the psychomotor and physical development of the patient, the condition of the palpebral-facial area, based on the results of laboratory and instrumental examinations to evaluate the information about the diagnosis.

2. Identify and identify the leading clinical symptoms and syndromes; using standard methods, using the previous history of the patient, examination of the patient, knowledge of the person, its organs and systems, establish a virogynous nosological preliminary clinical diagnosis of dental disease.

3. Recognize and analyze laboratory, functional, and/or instrumental examinations of patients with dental disease for differential diagnosis of diseases.

4. Establish a residual clinical diagnosis according to appropriate ethical and legal standards by rendering an informed decision and logical analysis of the obtained subjective and physical findings, Additional examinations, differential diagnostics under the supervision of a medical supervisor in a treatment setting.

5. Determine the diagnosis of non-disabling conditions in the treatment setting.
6. Plan and implement preventive measures of dental diseases in the population to prevent the spread of dental diseases.
7. To analyse epidemiological state and conduct mass and individual, general and local medical and non-medicinal prophylaxis of dental diseases.
8. Determine the nature of treatment of dental disease by taking an informed decision according to the current algorithms and standard schemes.
9. Determine the nature, principles of the work regime, rest and necessary diet in the treatment of dental diseases on the basis of the previous or residual clinical diagnosis.
10. To carry out treatment of the main dental diseases according to the current algorithms and standard schemes under the control of the medical supervisor in the conditions of the treatment facility.
11. Analyse and evaluate public, social and health information using standard approaches and computer-based information technology.
12. Evaluate the impact of the environment on the health of the population in the medical institution according to standard methods.
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 government, 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.
16. To form goals and determine the structure of personal activity based on the result of the analysis of certain social and personal needs.
17. Follow a healthy lifestyle, use self-regulation and self-control techniques.
18. To be aware of and be guided in one's activities by civil rights, freedoms and duties, to raise the general educational cultural level.
19. To comply with the requirements of ethics, bioethics and deontology in their professional activities.
20. To organize the necessary level of individual safety (own and the persons he cares for) in case of typical dangerous situations in the individual field of activity.
21. Perform medical manipulations on the basis of a preliminary and/or final clinical diagnosis (according to lists 2, 2.1) for different segments of the population and in different conditions (according to list 6).
22. Perform medical dental manipulations on the basis of a preliminary and/or final clinical diagnosis (according to lists 2, 2.1) for different segments of the population and in different conditions (according to list 7).
23. Perform emergency medical aid manipulations using standard schemes under any circumstances based on the diagnosis of an emergency (according to list 4) in limited time (according to lists 6, 7).



## 2. Form of summary control of learning success

A final control (differential assessment) of the medical internship is carried out after the last day of the internship and includes the completion of test tasks of varying complexity by the student

**3. Scheme of calculation and distribution of scores, which are received by students:** Forms of control and evaluation system are carried out in accordance with the requirements of the program of production medical practice for students of the 4th year of the Faculty of Dentistry. The grade for the referenced hall is defined as the sum of the marks received by the student for the practical skills (in points) and the assessment of the post-summary control (in points). The total student earns 200 points, including 120 points for the practical skills - 120 points, for the results of the summary control - 80 points.

The final control is carried out in accordance with the results of the training. One of the activities of students and its control by the practice supervisor is the maintenance of the practice diary of medical practice (Appendices 1-5). The diary is the main document for the period of medical practice, including its protection. Students are obliged to record every day in the practice diary everything done during the day. It also includes a general sequence of community work (issuing sanitary bulletins, writing essays, conducting talks in organized teams, etc.).

At least two times a day the student must submit the application for review to the assistant (associate professor) - head of industrial practice of the department and every year - to sign the indirect supervisor (doctor from the medical institution).

After completing the practice, the student completes a summary report on the work performed. Upon completion of the practical training, making a digital and textual report to the student is issued a characteristic and review of the Code, which are signed by the supervisor of the practice and the head physician. When writing the characteristic, the following indicators should be included: level of theoretical training, mastery of practical skills, knowledge of prescribing, adherence to the basics of deontology and ethics, student's attitude to mastery of practical skills. The characteristic must be sealed with a stamp of the medical institution where the medical practice was carried out. The presence of the completed according to the form and signed by the head of the practice and the summary statement is indispensable for the admission of the student to the differentiation hall.

Sanitary-educational work (issuing sanitary bulletins, holding talks, abstracts) is evaluated as an individual work of the student.

The grade is determined according to Table 1.

Students who have attended all working days and 100% completed the requested number of practical skills, learned them in written form and answered the questions on the content of the Student Guide with 72 points (which is 60%) of the maximum 120 points are admitted to the final control.

Midpoint of the final success rate on a traditional 4-point scale	Score for the current success rate after converting the midpoint	Midpoint of the final success rate on a traditional 4-point scale	Score for the current success rate after converting the midpoint
2,00	0	3,55	85
2,05	49	3,60	86
2,10	50	3,65	87
2,15	52	3,70	89
2,20	53	3,75	90
2,25	54	3,80	92
2,30	55	3,85	93

2,35	56	3,90	94
2,40	58	3,95	95
2,45	59	4,00	96
2,50	60	4,05	97
2,55	61	4,10	98
2,60	62	4,15	99
2,65	64	4,20	101
2,70	65	4,25	102
2,75	66	4,30	103
2,80	67	4,35	104
2,85	69	4,40	106
2,90	70	4,45	107
2,95	71	4,50	108
3,00	72	4,55	109
3,05	73	4,60	110
3,10	74	4,65	111
3,15	75	4,70	113
3,20	77	4,75	114
3,25	78	4,80	115
3,30	79	4,85	116
3,35	80	4,90	118
3,40	82	4,95	119
3,45	83	5,00	120
3,50	84		

**The final control of medical practice**, which is carried out in the form of a differentiated credit accepted by the responsible teachers, requires the student to perform 80 test tasks. The maximum number of points a student may receive during the test control is 80.

The final test will be deemed passed if the student scores at least 50 points.

The points can be added to the number of points in the production practice for students who have scientific publications or won prizes for participation in the Olympics of Ukraine in the disciplines that are included in the practice and others.

**Conversion** of the number of points from the production practice into the marks according to the ETSU and 4-ball (traditional) scales.

The number of points from the discipline awarded to students is converted to the ETS scale as follows:

Evaluation of the ECTS	Statistical indicator
A	Top 10% of students
B	Next 25% of students
C	Incoming 30% of students
D	Incoming 25% of students
E	Remaining 10% of students

The number of students is determined by the electorate for the students of the course within the boundaries of the respective speciality.

The number of discipline points awarded to students is converted into a 4-point scale as follows:

Evaluation of the ECTS	Rating on a 4-point scale
A	«5»
B,C	«4»
D,E	«3»
FX, F	«2»

The FX grade ("2") is given to the students who scored the minimum number of points for the in-service training activities, but did not complete the summary module control. They have the right to repeat the summary modular control not more than two (2) times according to the schedule approved by the Rector.

Students who received a grade of F at the end of medical internship (did not complete the training program or did not get the minimum number of points for the current training activity) have the right to repeat the training. The decision is made by the head of the HEI in accordance with the regulations approved in the established order.

#### 4. Methodological support:

- Work plan and programme of practical training;
- The students' practical and self-study work plans;
- Guidelines and methodology for the teacher;
- Guidelines for practical exercises for students;
- methodological materials to ensure students' self-study;
- Tests and control tasks for the practical exercises;
- Topics and tasks for the control of the unit;
- The list of theoretical topics and tasks for practical skills testing during the summary module control.

#### 5. Recommended literature

##### Basic:

1. Nikolysyn A.K. Therapeutic dentistry /A.K. Nikolysyn: a textbook is for the students of dental faculties of higher medical educational establishments of IV level of accreditation in two volumes, T.I.-Poltava: Divosvit, 2005.- 392 p.



2. Borovskiy E.V. Therapeutic dentistry: a textbook is for the students of dental faculties of higher medical educational establishments.- M.: Med. Inform, agency, 2006.- 840 p.
3. Nikolysyn A.K. Therapeutic dentistry /A.K. Nikolysyn: a textbook is for the students of dentistry faculties of higher medical educational establishments of IV level of accreditation in two volumes, TJI.-Poltava: Divosvit, 2007.- 280 p.
4. Preclinical course of therapeutic dentistry: course of lectures /L.O. Tsvykh, O.A. Petryshyn, V.V Kononenko, M.V.Hysyk-Lviv, 2002.-159p.
5. The methodological manual for practical of therapeutic dentistry /L.O.Tsvykh, O.A. Petryshyn, V.V. Kononenko, M.V. Hysyk.- Lviv, 2003.- 98 p.
6. S. Hussain. Textbook of Dental Materials // Printed of Gopsan Papers Ltd.- NewDelli,2004.-475p.
7. T.M. Robertson, H.O. Heyinann, E.J. Swift. Sturdevant's Art & Science of Operative Dentistry 4<sup>th</sup>Edition-Mosby, 2002-947p.
8. WJ. O'Brien. Dental Materials and their selection // Quintessence Publishing.-Chicago, Berlin, Tokyo, Copenhagen, London, 2002,- 418 p.
9. James B. Summitt, J. William Robbins, Richard S. Schwartz. Fundamentals of Operative Dentistry (second edition)// Quintessence Publishing, 2001.

**Additional:**

1. Atlas of microanatomy of organs of oral cavity of/LA. Lutsik, VF. Makeev, A.M. Yashchenko, O.E. Zavadka, Yu.V. Makeeva, YuYa. Kryvko.- Lviv: Nautilus, 1999.-208 p.
2. Nikolysyn A.K. Therapeutic dentistry /A.K. Nikolysyn: a textbook for the students of dental faculties of higher medical educational establishments of IV level of accreditation in two volumes, T.I.- Poltava: Divosvit, 2005.- 392 p.
3. Dmitrieva AA. Therapeutic dentistry.(M.: Medpress-inform, 2003.) 896 p.
4. Pediatric dentistry (Editor prof. L.O. Khomenko).( K.: Book plus, 1999.)524 p.
5. Therapeutic dentistry (Editor Yu.M. Maksimovskyj).- M.: Medicine, 2002-640 p.
6. Preclinical course of therapeutic dentistry /E.A. Skorikovaj V.A. Volkov, N.P. Bazhenova, N.V. Lapina, I.V. Erechev,- Rostov.: Feniks, 2002.- 640 p.
7. Clinical endodontics: a textbook /Leif Tronstad.- 3rd' rev. ed.- New Yourk, 2009- 249 p.
8. Stephen Cohen, Richard C Burns. Pathways of the pulp. Eighth edition.- Mosby,2002.-1031p.
9. Fan B, Wu M-K, Wesselink PR. Leakage along warm gutta-percha fillings in the apical canals of curved roots. Endod Dent Traumatol 2000;16:29-33.
- 10.Glosson CR, Haller RH, Brent Dove S, del'Rio .CE. Comparison of root canal preparations using NiTi hand, NiTi engine-driven and K-flex endodontic instruments. J Endod 1995;21:146-51.
- 11.Molven O, Halse A, Grung B. Surgical management of endodontic failures: indications and treatment results. Int Dent J 1991;41:33-42.
12. Seltzer and Bender's. Dental pulp // Quintessence Publishing, 2002.

**6. Information resources**

1. Official website Danylo Halytsky Lviv national medical university: <http://www.meduniv.lviv.ua/>

2. Electronic information resources University Library:

- Library Catalogue.

- Directory Information sources: encyclopedias, reference books, dictionaries.

- Educational electronic publications and resources: Materials containing organic material within the framework of the course.

2. Information on the Web:

- <http://obkmed.by/stomatologiya/propedvtika-stomatologicheskikh-zabolevanij-skorikova-1-a.html>

- [http://dentalss.org.ua/load/lmiga\\_stomatologia/obshhaja\\_stomatologija/propedvtika\\_stomatologicheskikh\\_zabolevanij/6-1-0-422](http://dentalss.org.ua/load/lmiga_stomatologia/obshhaja_stomatologija/propedvtika_stomatologicheskikh_zabolevanij/6-1-0-422)

- <http://vAvwJibraiy.gov.ua/novi-nadkhodzhennia/stomatolohiia-eds-m-m-rozhok-liber-2/802-stomatolohiia-eds-m-m-rozhok-liber-2>

- <http://www.booksmed.com/stomatologiya/153-terapevticheskaya-stomatologiya-borovskij.html>