

**“APPROVED ”**

T.p.a. first vice-rector  
on Scientific and Pediatric work  
Assoc. prof. I.I. Solonynko

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“05”            07            2022

**STUDY PROGRAM**  
of the educational discipline

**Propedeutics of Pediatric Therapeutic Dentistry**

Preparing of specialists of the second (master's) level of higher education  
Educational qualification “Master of Dentistry”  
Professional qualification “Dentist”  
in the field of knowledge 22 "Health"  
specialty 221 "Dentistry"

**“Approved”**

on meeting of Department  
of Pediatric Dentistry  
Protocol №7  
from "15" June 2022  
Head of Department

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Assoc.prof. Kolesnichenko O.V.

**"Approved"**

of profiled methodical commission  
of dental disciplines  
Protocol № 3  
from "21" June 2022  
Head of methodical commission

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Professor Vares Ya. E.

Working curriculum in the discipline of Propaedeutics of Pediatric Therapeutic Dentistry for 2nd year students of the Faculty of Dentistry, majoring in 221 "Dentistry", were:

Kolesnichenko OV, Head of the Department of Pediatric Dentistry, Candidate of Medical Sciences,

Associate Professor;

Fuhr MB, Candidate of Medical Sciences, Associate Professor of the Department Pediatric Dentistry;

Leshchuk SEy, Candidate of Medical Sciences, Assistant of the Department of Pediatric Dentistry

Solonko GM Candidate of Medical Sciences, Associate Professor of the Department of Pediatric Dentistry;

on the basis of the sample program of the discipline "Propaedeutics of Pediatric Therapeutic Dentistry" approved by the State Institution "Central Methodical Office for Higher Medical Education of the Ministry of Health of Ukraine" May 29, 2017 and the curriculum approved by the profile methodological commission

## INTRODUCTION

Program of studying the discipline

"Propedeutics of Pediatric Therapeutic Dentistry"

in accordance with the Standard of Higher Education of the second (master's) level

Knowledge 22 "Health"

specialty \_221 "Dentistry" \_\_\_\_\_

*Master's Degree Program in Dentistry*

Description of the discipline (abstract) Propedeutics of pediatric therapeutic dentistry is a discipline that allows students to master phantoms with certain dental manipulations used in the clinic in the treatment of caries and its complications in temporary and permanent teeth at different stages of their development. Students thus acquired special (professional) competences will be used in the process of work directly with patients. On phantom models and removed temporary and permanent teeth, students will get acquainted with the main periods of development, formation and resorption of the teeth roots, the periods of formation of permanent teeth in children, and also master the basic dental manipulations in the preparation and sealing of carious defects in teeth, conduct endodontic interventions in temporary and permanent teeth that are at different stages of development.

Structure of the discipline	Amount of credits, hours, from them			Year of study semester	type of control	
	Total	Auditory				SWS
		Lectures (hours)	Practical classes (hours)			
Name of the discipline: <b>Propedeutics of pediatric therapeutic dentistry</b>  Content modules 4	3 credits / 90 hours.	10	34	46	2nd course  (4th semester)	Differentiated credit

**The subject of studying the discipline "Propedeutics of Pediatric Therapeutic Dentistry" is:**

- the equipment of the dentist's office, the main dental instruments and rules of work with them, provision of asepsis and antiseptics during the stomatological admission; disinfection and sterilization of dental instruments and equipment;

- features of anatomical structure of temporary and permanent teeth at different stages of their development;

- classification of carious cavities; stages of preparation of carious cavity; features of the preparation of carious cavities of different classes in temporary and permanent teeth in children, taking into account the type of sealing material;

- classification of modern sealing materials, their properties, indications for use in the clinic of pediatric therapeutic dentistry; technique of sealing carious cavities in temporary and permanent teeth in children with different sealing materials;

- the main stages of endodontic treatment; endodontic instruments, their purpose and rules of use; techniques of instrumental and medical treatment of root canals in temporary and permanent teeth at different stages of development;

- classification of sealing materials for root seals; technique of temporary and permanent obturation of root canals in temporary and permanent teeth at different stages of development.

### **Interdisciplinary connections**

#### **"Propedeutics of pediatric therapeutic dentistry" as a discipline**

a) is based on the previous study of human anatomy by students; histology, embryology and cytology, medical biology, medical chemistry, biological and bioorganic chemistry, medical physics, microbiology, virology and immunology and integrates with these disciplines;

b) lay the foundations for students to study such clinical disciplines as prophylaxis of dental diseases, pediatric therapeutic dentistry, therapeutic dentistry, orthodontics;

c) is based on students' study of propaedeutic disciplines of the dentistry: propaedeutics of therapeutic dentistry and propaedeutics of orthopedic dentistry and integrates with these disciplines;

d) Integrates with the following clinical disciplines: prevention of dental diseases, pediatric therapeutic dentistry and therapeutic dentistry;

e) forms the idea of the need to prevent dental diseases.

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

**1.1. With the teaching of the discipline "Propedeutics of pediatric therapeutic dentistry" is the mastery of the phantom technique of the implementation of dental manipulations used in the treatment of caries and its complications in temporary and permanent teeth at different stages of**

their development in children, for the possibility of their subsequent use during the clinical admission of children and the formation of special (professional) competencies in the clinic of pediatric therapeutic dentistry

**1.2. The main tasks of studying the discipline "Propedeutics of pediatric therapeutic dentistry" are:**

- preparation of students for work in a clinical dentist's office by studying dental equipment, modern dental instruments and materials, rules of work with them; disinfection and sterilization of dental instruments;
- mastering on phantoms by technique of execution of dental manipulations in the treatment of caries and its complications in temporary and permanent teeth at different stages of their development.

**1.3. Competence and learning outcomes**, the formation of which is facilitated by discipline (the relationship with the normative content of the training of applicants for higher education, formulated in terms of the results of training in the Standard of Higher Education).

According to the requirements of the Standard of Higher Education, discipline ensures students' acquisition of competences: the relationship with the normative content of the training of higher education graduates, formulated in terms of the results of training in the Standard).

- integral:

Ability to solve problems and problems in the field of health care in the field of dentistry in the field of professional activity or in the process of learning that involves research and / or innovation and is characterized by uncertainty of conditions and requirements.

- general:

1. The ability to abstract thinking, analysis and synthesis; the ability to learn and to 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 a second 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; the ability to work autonomously.
8. Skills will detect, put 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. Safety skills.
14. Ability to assess and ensure the quality of work performed.
15. The desire to preserve the environment.
16. Ability to act in a socially responsible and civic conscious manner.

- special (professional, subject):

1. To recognize the moral, ethical and professional rules of the child's dentist.
2. To understand moral and deontological principles of a medical specialist and rules of professional subordination in the clinic of pediatric dentistry.
3. Learn to promote a healthy psychological climate in a team; to learn the basics of the legal norms of the relationship children's dentist → patient (child).
4. Demonstrate on phantoms the ability to use the main dental instruments, materials and to use stomatological equipment in pediatric dentistry:
  - to get acquainted with the structure of the pediatric dentist's office, department, clinic;
  - to master the dental equipment of the pediatric dental clinic;
  - to study the basic dental instruments used during dental reception of children;
  - to study the classification of dental filling materials, materials for root seals used in children;
  - study the basic requirements for dental materials, their properties and indications for use in children.
5. Demonstrate on phantoms the use of stomatological manipulations in the treatment of teeth in children:
  - Preparation of carious cavities of different classes in temporary and permanent teeth taking into account the type of sealing material;
  - filling of carious cavities of different classes in temporary and permanent teeth with different filling materials;
  - final processing of seals from all types of materials used in children's dental treatment;
  - overlaying and removing temporary seals and sealing joints in the treatment of caries and its complications in temporary and permanent teeth in children;
  - imposition of medical and insulating linings in temporary and permanent teeth in children;
  - instrumental and medical treatment of root canals of temporary and permanent teeth taking into account the stage of tooth development;
  - Sealing (temporary or permanent) of root canals of temporary and permanent teeth with different materials, taking into account the stage of development of the tooth.
6. To distinguish features of application of principles in aseptic and antiseptic in the clinic of pediatric therapeutic dentistry:

- to study modern requirements for sterilization of instruments in the clinic of pediatric dentistry;
- to realize the importance of adherence to the rules of asepsis and antiseptics on children's stomatologic treatment;
- to master the norms of control over the effectiveness of sterilization;
- to determine the methods of preventing the conditions for the spread of infection in children's facilities.

Detail of competencies according to the descriptors in the form of "Matrix of competencies".

### Matrix of competencies

№	Competence	Knowledge	Ability	Communication	Autonomy and responsibility
<i>General competencies</i>					
<b>1.</b>	Ability to think, analyze and synthesize abstract; the ability to learn and to be modernly trained	Know the current trends in the industry and the indicators that characterize them	Be able to analyze professional information, make informed decisions, acquire modern knowledge	Establish appropriate ties to achieve the objectives.	Be responsible for the timely acquisition of modern knowledge.
<b>2.</b>	Knowledge and understanding of the subject area and understanding of the profession.	To know the peculiarities 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 continuing professional development with a high level of autonomy.
<b>3.</b>	Ability to apply knowledge in practical situations.	Know the methods of realizing knowledge in solving practical problems.	Be able to use professional knowledge to solve practical problems.	Establish connections with subjects of practical activity.	Be responsible for the validity of the decisions taken.
<b>4.</b>	Ability to communicate in the state language both verbally and in writing. Ability to communicate in a second language.	Know the state language, including professional orientation. Have a foreign language at a level sufficient for professional communication	Be able to use the state language and foreign language for professional activities and communication	To form a communication strategy in professional activity.	Be responsible for continuing professional development with a high level of autonomy
<b>5.</b>	Skills in the use of information and	Have modern knowledge in the field of	Be able to use information and communication	Use information and	To be responsible for the continuous

	communication technologies	information and communication technologies used in professional activities	technologies in a professional industry that needs updating and integrating knowledge.	communication technologies in professional activity	development of professional knowledge and skills.
6.	Ability to search, process and analyze information from various sources.	Have the necessary knowledge in the field of information technology used in professional activities	Being able to use information technology in the professional field to search, process and analyze new information from various sources.	Use information technology in professional activities	To be responsible for the continuous development of professional knowledge and skills.
7.	Ability to adapt and act in a new situation; the ability to work autonomously.	Know the methods of realizing knowledge in solving practical problems	Be able to use professional knowledge for adaptation and action in a new situation.	Establish connections with subjects of practical activity.	Be responsible for the quality of performing professional tasks in a new situation.
8	Ability to identify, put and solve problems.	Know the methods of realizing knowledge in identifying, staging and solving problems of professional activity	Be able to use professional knowledge to identify, articulate and solve professional problems.	Establish connections with subjects of practical activity with purpose of revealing, staging and solving problems of professional activity.	Be responsible for the validity of decisions taken to resolve problems of professional activity.
9	Ability to choose a communication strategy.	Know the methods of realizing knowledge in choosing a strategy for communicating with patients and colleagues.	Be able to use knowledge to choose a strategy for communicating with patients and colleagues.	To form a communication strategy in professional activity.	Be responsible for continuing professional development with a high level of autonomy



<b>10</b>	Ability to work in a team.	Know how to collaborate on teamwork	Be able to use knowledge to choose a communication strategy during teamwork	To form a communication strategy in professional activity.	To be responsible for continuous professional development
<b>11</b>	Skills between personal interaction.	Know how to interact with colleagues and patients	Be able to use knowledge to choose a communication strategy during interpersonal interaction	To form a communication strategy in professional activity.	Be responsible for continuing professional development with a high level of autonomy
<b>12</b>	Ability to act on the basis of ethical considerations (motives).	Know the moral and ethical principles of a medical specialist and the rules of professional subordination	To use in practice the moral and ethical principles of a medical specialist and the rules of professional subordination.	Observe during the professional activity the moral and ethical principles of the medical specialist and the rules of professional subordination.	Have personal responsibility for complying with the moral and ethical principles of the medical specialist and the rules of professional subordination.
<b>13</b>	Skills to perform safe activities	Ability to assess the level of danger in the performance of professional tasks	Be able to carry out professional activities in compliance with safety rules	To provide high-quality professional performance work with compliance safety rules.	Have personal compliance for compliance with safety rules when performing professional tasks
<b>14</b>	Ability to evaluate and ensure the quality of work performed.	Ability to evaluate and provide quality when performing professional tasks.	Know the methods of evaluating performance indicators.	Be able provide qualitative performance of professional work	Establish connections to ensure the quality of work.
<b>15</b>	The desire to preserve the environment.	Ability to assess the state of the environment	Be able to analyze the quality of the environment.	To provide professional quality performance tasks in the conditions of preservation of the environment	Have personal compliance with environmental rules when performing professional tasks

16	Ability to act in a socially responsible and civic conscious manner.	Know your social and public rights and responsibilities	To form their civic consciousness, to be able to act in accordance with it	Ability to communicate their social and social position.	Be responsible for your civic position and activities
<i>Special (professional competencies)</i>					
1.	To recognize the moral and ethical and professional rules of the child's dentist.	Know the basic provisions of the Ethical code of a dentist	Use in practice Ethical code for a dentist	Follow while communicating with patients and colleagues Ethic Code of Dentistry	Have personal responsibility for observing the provisions in practice Ethical code of a dentist
2.	Understand the moral and deontological principles of a medical specialist and the rules of professional subordination in the clinic of pediatric dentistry.	Know the moral and deontological principles of a medical specialist and the rules of professional subordination in the clinic of pediatric dentistry.	To use in practice the moral-deontological principles of a medical specialist and the rules of professional subordination in the clinic of pediatric dentistry.	To observe during the professional activity of moral-deontological principles of a medical specialist and rules of professional subordination in the clinic of pediatric dentistry.	Have personal responsibility for observing the morally-deontological principles of a medical specialist and the rules of professional subordination in the clinic of pediatric dentistry.
3.	Learn to promote a healthy psychological climate in the team; to learn the legal norms of the relationship children's dentist → patient (child).	Know the valid legal norms of the relationship "children's dentist → patient (child)".	To use in practice the legal norms of the relationship "children's dentist → patient (child)". Be able to form a healthy psychological microclimate in the team	Observe your professional activity current ones legal norms of the relationship "children's dentist → patient (child)". Support a healthy psychological microclimate in the team	Have personal responsibility for compliance with the current legal norms of the relationship "children's dentist → patient (child)".
4.	Demonstrate <u>on phantoms</u> the ability to apply basic dental instruments, materials and use dental	Know the equipment of the dentist's office, the main dental	Be able to use the equipment of the dentist's office, the main dental	Interact with junior medical staff. During using Equipment	Have personal responsibility for the correct use of the equipment of the dentist's

	<p>equipment in pediatric dentistry:</p> <ul style="list-style-type: none"> <li>- to get acquainted with the structure of the pediatric dentist's office, department, clinic;</li> <li>- to master the dental equipment of the pediatric dental clinic;</li> <li>- to study the main dental instruments used in children's dentistry;</li> <li>- to study the classification of dental filling materials, materials for root seals used in children;</li> <li>- Determine the basic requirements for dental materials, their properties and indications for use in children.</li> </ul>	<p>instruments, the composition, properties and indications for the use of dental materials that use</p> <p>In the clinic of pediatric therapeutic dentistry</p>	<p>instruments and dental materials used</p> <p>In the clinic of pediatric therapeutic dentistry</p>	<p>dentistgrippy the cabinet, the main dentist a hysterical thread</p> <p>mentarian and dentist concise materials that is used Sticks in the clinic pediatric therapeutic dentistry</p>	<p>office, the main dental instruments and dental materials that use</p> <p>In the clinic of pediatric therapeutic dentistry</p>
5.	<p>Demonstrate <b><u>on phantoms</u></b> of performance of dental manipulations at treatment of teeth in children:</p> <ul style="list-style-type: none"> <li>- Preparation of carious cavities of different classes in temporary and permanent teeth taking into account the type of sealing material;</li> <li>- filling of carious cavities of different</li> </ul>	<p>Know algorithms of execution on phantoms of stomatological manipulations of preparation and sealing of carious cavities of different classes in temporary and permanent teeth, techniques of endodontic interventions in temporary and permanent teeth at different</p>	<p>Be able to perform dental manipulations on the phantoms on the preparation and sealing of carious cavities of different classes in temporary and permanent teeth, the technique of endodontic interventions in temporary and permanent teeth at different stages of their development.</p>	<p>To communicate and interact with colleagues and the teacher during the execution on phantoms of dental manipulations of the preparation and sealing of carious cavities of different classes in temporary and</p>	<p>Have personal responsibility for the correctness of the execution on the phantoms of stomatological manipulation of the preparation and sealing of carious cavities of different classes in temporary and permanent teeth, techniques of endodontic interventions in temporary and permanent teeth</p>

	<p>classes in temporary and permanent teeth with different filling materials;</p> <ul style="list-style-type: none"> <li>- to carry out the final processing of seals from all types of materials used in children's dental treatment;</li> <li>- To carry out the imposition and removal of temporary seals and sealing joints in the treatment of caries, pulpitis, periodontitis in children;</li> <li>- To apply medical and insulating linings in temporary and permanent teeth in children;</li> <li>- to perform instrumental and medical treatment of root canals of temporary and permanent teeth taking into account the stage of development;</li> <li>- To perform the filling of root canals of temporary and permanent teeth with different materials taking into account the stage of development.</li> </ul>	<p>stages of their development.</p>		<p>permanent teeth, techniques of endodontic interventions in temporary and permanent teeth at different stages of their development.</p>	<p>at different stages of their development</p>
6.	<p>To distinguish the peculiarities of the application of the principles of asepsis</p>	<p>Know the basic principles aseptics and antiseptics in the</p>	<p>Be able to organize disinfection and sterilization of</p>	<p>Recognize the importance of compliance with the rules</p>	<p>Identify methods for preventing the spread of infection in</p>

<p>and antiseptics in the pediatric therapeutic dentistry clinic:</p> <ul style="list-style-type: none"> <li>- to study modern requirements for sterilization of instruments in the clinic of pediatric dentistry;</li> <li>-import the importance of adhering to the rules of asepsis and antiseptics on children's dental treatment;</li> <li>- to master the norms of control over the effectiveness of sterilization;</li> <li>-to determine the methods of preventing the conditions for the spread of infection in children's facilities.</li> </ul>	<p>clinic of pediatric therapeutic dentistry, modern methods of disinfection and sterilization of dental equipment and tools.</p>	<p>dental equipment and tools; monitor the effectiveness of sterilization.</p>	<p>of aseptic and antiseptic on children's dental reception.</p>	<p>children's facilities.</p> <p>Have personal responsibility for compliance with the rules of asepsis and antiseptics on children's dental treatment.</p>
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Learning outcomes:

**Integrative final program learning outcomes, the formation of which is facilitated by the discipline "Propaedeutics of Pediatric Therapeutic Dentistry":**

1. Demonstrate mastery of moral and deontological principles of a medical specialist and the principles of professional subordination in the clinic of pediatric therapeutic dentistry.
2. Demonstrate on the phantoms of dental manipulations in the treatment of teeth in children:
  - preparation of carious cavities of temporary and permanent teeth, taking into account the type of filling material;
  - filling of carious cavities of temporary and permanent teeth with different filling materials;
  - grinding and polishing of fillings from all types of filling materials used in the clinic of pediatric therapeutic dentistry;

- imposition of medical and insulating pads in temporary and permanent teeth;
- instrumental and medical treatment of the root canals of temporary and permanent teeth, taking into account the stage of tooth development;
- filling of root canals of temporary and permanent teeth with different materials taking into account the stage of tooth development;

3. Demonstrate on phantoms the ability to use basic dental tools, materials and use dental equipment in pediatric dentistry in:

- preparation of carious cavities of temporary and permanent teeth, taking into account the type of filling material;
- filling of carious cavities of temporary and permanent teeth with different filling materials;
- imposition of medical and insulating pads in temporary and permanent teeth;
- application and removal of temporary fillings and airtight bandages in the treatment of caries and its complications in temporary and permanent teeth;
- instrumental and medical treatment of root canals of temporary and permanent teeth at different stages of their development;
- filling (temporary and permanent) of root canals of temporary and permanent teeth with different materials at different stages of their development;
- grinding and polishing of seals from all types of sealing materials.

4. Distinguish the features of the principles of asepsis and antiseptics in the clinic of pediatric therapeutic dentistry in:

- preparation of carious cavities of temporary and permanent teeth at different stages of development;
- filling of carious cavities of temporary and permanent teeth with different filling materials;
- imposition of medical and insulating pads in temporary and permanent teeth;
- application and removal of temporary fillings and airtight bandages in the treatment of caries and its complications in temporary and permanent teeth;
- instrumental and medical treatment of root canals of temporary and permanent teeth at different stages of their development;
- filling (temporary and permanent) of root canals of temporary and permanent teeth with different materials at different stages of their development;
- grinding and polishing of seals from all types of sealing materials.

**Learning outcomes for the discipline.**

As a result of studying the discipline "Propaedeutics of Pediatric Therapeutic Dentistry" the student must know:

- differences between temporary and permanent teeth;
- classification of carious cavities according to Black;
- principles of preparation of carious cavities, their characteristics, advantages and disadvantages;
- the main stages of preparation of the carious cavity, the tools used;
- principles of preparation and formation of the cavity of the first class in temporary and permanent teeth in children;
- principles of preparation and formation of the cavity of class II in temporary and permanent teeth in children;
- principles of preparation and formation of the cavity of class III in temporary and permanent teeth in children;
- principles of preparation and formation of the cavity of the IU class in temporary and permanent teeth in children; - principles of preparation and formation of the cavity of the B class in temporary and permanent teeth in children;
- classification of dental filling materials;
- features of preparation of a carious cavity depending on the choice of filling material (amalgam, composite, SIC);
- technique of preparation of zinc-phosphate cements and application of insulating gaskets;
- groups, basic requirements for materials for medical pads, technique of applying medical pads;
- characteristics, groups, positive properties and disadvantages of glass ionomer cements;
- technique of preparation and filling with glass ionomer cement;
- main components, positive and negative properties of silver amalgam, types of amalgam;
- amalgam filling technique, necessary tools;
- modern classification of composite filling materials;
- types, purpose, technique of application of adhesive systems of different generations;
- positive and negative properties, indications for the use of chemical hardening composite materials;
- technique of filling a carious cavity with composite materials of chemical hardening;
- positive and negative properties, indications for the use of light-cured composite materials;
- technique of filling a carious cavity with photopolymer composite material;
- general characteristics, indications for use, technique of sealing with compomers;

- features of filling of carious cavities of I and B classes in temporary and permanent teeth with different filling materials;
  - technique of restoration of a contact point at filling of carious cavities of the II class, accessories necessary for this purpose;
  - technique of filling of carious cavities of the III class in permanent teeth with restoration of a contact point;
  - features of filling of carious cavities of IU class in permanent teeth, restoration of anatomical form (restoration) of a tooth;
- technique of final processing of a permanent seal from various sealing materials, tools and accessories necessary for this purpose;
- topography and technique of opening the tooth cavity in temporary teeth;
  - topography and technique of opening the tooth cavity in permanent teeth ;.
  - modern classification of endodontic instruments, their purpose, rules of use;
  - the main stages of endodontic treatment;
  - root canal processing tools and tools used at each stage;
  - characteristics, indications for the implementation of modern techniques of endodontic treatment of root canals;
  - standard technique of instrumental treatment of root canals in temporary teeth and in permanent teeth with unformed root;
  - characteristics of filling materials for temporary obturation of root canals;
- the technique of performing temporary obturation of root canals in temporary and permanent teeth at different stages of their development;
- modern classification of materials for root fillings;
  - types, indications for use, positive and negative properties of sealers and fillers for root canals;
  - characteristics, advantages and disadvantages of materials used for root fillings in temporary teeth;
  - characteristics, advantages and disadvantages of materials used for root fillings in permanent teeth;
  - technique of filling root canals with gutta-percha in permanent teeth with unformed root;
  - technique of filling root canals with gutta-percha (lateral condensation method) in permanent teeth with a formed root;
  - technique of filling root canals with paste or paste with one pin.

As a result of studying the discipline "Propaedeutics of Pediatric Therapeutic Dentistry" the student must be able to:



- distinguish between temporary and permanent teeth by anatomical features;
- dissect carious cavities of class I in temporary and permanent teeth on the phantom;
- dissect carious cavities of class II in temporary and permanent teeth on the phantom;
- prepare carious cavities of class III in temporary and permanent teeth on the phantom;
- dissect carious cavities of class IV in permanent teeth on the phantom;
- dissect carious cavities of class V in temporary and permanent teeth on the phantom;

As a result of studying the discipline "**Propaedeutics of Pediatric Therapeutic Dentistry**" the student must be able to:

- distinguish between temporary and permanent teeth by anatomical features;
- dissect carious cavities of class I in temporary and permanent teeth on the phantom;
- dissect carious cavities of class II in temporary and permanent teeth on the phantom;
- prepare carious cavities of class III in temporary and permanent teeth on the phantom;
- dissect carious cavities of class IV in permanent teeth on the phantom;
- dissect carious cavities of class V in temporary and permanent teeth on the phantom;
- prepare zinc phosphate cement for insulating gasket;
- prepare glass ionomer cement for sealing;
- prepare a composite material of chemical hardening for sealing;
- to fill carious cavities of the I class in a temporary and permanent tooth with various filling materials on a phantom;
- to fill carious cavities of the II class with restoration of a contact point in a temporary and permanent tooth with various filling materials on a phantom ;
- to fill carious cavities of the III class with restoration of a contact point in a temporary and permanent tooth with various filling materials on a phantom;
- to fill carious cavities of the IV class in a permanent tooth with various filling materials on a phantom;
- to fill carious cavities of the V class in a temporary and permanent tooth with various filling materials on a phantom;
- have the technique of opening the tooth cavity in temporary teeth on a phantom;
- have the technique of opening the tooth cavity in permanent teeth on a phantom;
- have the technique of instrumental and medical treatment of root canals in temporary and permanent teeth at different stages of development of the tooth root on the phantom.
- be able to prepare zinc oxide-eugenol paste for root canal filling;
- have the technique of filling root canals with pastes in temporary and permanent teeth on the phantom.

- to have the technique of lateral condensation of gutta-percha when filling root canals in permanent teeth on a phantom.

## 2. Information volume of the discipline

3 ECTS credits of 90 hours are allocated for the study of the academic discipline.

## 3. Thematical plan of lectures on Propedeutics of Pediatric Therapeutic Dentistry

Theme of the lectures		Hour
1.	Historical stages of development of Pediatric Dentistry. Anatomical, morphological, histological and roentgenological features of a tooth, jaw system in children at different age period. Physiology of teeth eruption. Physiological signs of teeth eruption.	2
2.	The main principles of preparation of the hard tissues in children. The conditions of painless preparation. Peculiarities of preparation of the different classes of carious cavities of primary and permanent teeth in children.	2
3.	Dental filling materials for primary and permanent teeth. The main physico-chemical and biological properties of filling materials. Classification. The basic criteria of choice. Peculiarities of filling of carious cavities with different materials.	2
4.	Modern endodontic tools. Classification, indication, technique of using.	2
5.	Principles of instrumental and medicamentous treatment of root canals in Pediatric Dentistry. Filling of root canals of primary and permanent teeth in children.	2
	Whole	10

## 4. Thematical plan of practical classes on Propedeutics of Pediatric Therapeutic Dentistry

	Theme of the lesson	Hour
1.	Organization of work in dental clinic. Dental equipment and instruments, their types and indications. Disinfection and sterilization of the dental equipment and instruments. The main principles of four-handed dentistry.	2
2.	Topographical and anatomical peculiarities of anatomy of primary and permanent teeth on the different stages of its development. Making of phantoms with plastic and hard materials.	2
3.	Physiology and pathology of teeth eruption. Terms of root formation and resorption of primary and permanent teeth.	2
4.	The main rules and stages of preparation of carious cavities, elements of the carious cavity. Necessary tools for preparation of carious cavities.	2
5.	Preparation of Class I and V cavities in primary and permanent teeth with unformed root. Choice of instruments.	2
6.	Preparation of Class II, III, IV cavities in primary and permanent teeth with unformed root. Choice of the instruments.	2
7.	Classification of filling materials, its peculiarities and indications for use.	2
8.	Filling of carious cavities of Class I, Class V in primary and permanent teeth with dental cements and amalgam.	2
9.	Technique of filling of Class II restoration with dental cements and amalgam of primary and permanent teeth. Forming of the contact point.	2

10.	Resin based composites and compomers. Technique of filling of Class I and V carious cavities of primary and permanent teeth.	2
11.	Technique of filling of Class III and IV carious cavities of primary and permanent teeth in children. Restoration of the form, color of the tooth and the contact point.	2
12.	Technique of the instrumental and medicamental treatment of root canals of primary and permanent teeth with unformed roots. Modern endodontic instruments: types, indications, choice.	2
13.	Modern endodontic instruments. Classification, types, purpose.	2
14.	Technique of filling of root canals of permanent teeth at different stages of formation. The concept of apexogenesis and apexification.	2
15.	Filling materials for the temporary and permanent obturation of root canals. Technique of filling of root canals of primary teeth.	2
16.	The technique of filling root canals in permanent teeth at different stages of their development.	2
17.	The concept of "apexogenesis" and "apexification". Definition, technique. Control of mastering practical skills. Differentiated credit.	2
	Whole	34

### 5. Thematical plan of self-work on Propedeutics of Pediatric Therapeutic Dentistry

№	Theme	Hours
1.	Main rules of four-handed dentistry	5
2.	Modern conceptions of carious cavity preparation (by Black, Lukomsky, preparing for the preventive filling).	5
3.	Alternative methods of removing of carious injured tissues (chemical mechanical preparation of carious cavities in children, ART-method)	5
4.	Modern matrix systems and matrix holders.	5
5.	Technique of restoration of the contact point during the dental filling.	5
6.	Adhesive systems and there use in dentistry. Types, compositions, features, technique of use.	5
7.	Modern photopolymer lamps: types, indications, control of the lamp power. Protective means for the dentist and patient.	5
8.	Means for irrigation of root canals of temporary and permanent teeth.	4
9.	Materials for vital therapy of pulp, their properties.	4
10	Modern materials for the permanent root obturation in permanent teeth: There properties, technique of the use.	3
	Whole	46

□

**6. Individual tasks** (medical histories, forensic medical acts, acts of toxicological research, course and diploma, master's theses) **are not provided.**

## **7. Teaching methods**

**The organization of the educational process is carried out according to the credit-transfer system**

Types of educational activities of students according to the curriculum are:

- a) lectures;
- b) practical classes;
- c) self work of students (SWS);

**Thematic plans of lectures, practical classes and SW ensure the implementation in the educational process of all topics that are part of the content modules of the discipline "Propaedeutics of Pediatric Therapeutic Dentistry".**

The topics of the lecture course (5 topics) reveal the most important problematic issues of the relevant sections of the discipline "Propaedeutics of Pediatric Therapeutic Dentistry".

Duration of practical classes - 2 academic hours (90 minutes). Practical classes are held on a tape basis, are held in classrooms (phantom classes) and clinical offices of the department Methods of organizing practical classes in the discipline "Propaedeutics of Pediatric Therapeutic Dentistry" provides:

1. Control of the student's SWS in preparation for the topic of the current practical lesson by checking the written performance of the student in the Workbook of the relevant tasks - 10 minutes.
  2. Test control (level  $\alpha - 2$ ) of the initial level of knowledge and determination of the degree of readiness of students for the lesson - 15 minutes.
  4. For 30 minutes, students independently work on phantoms of certain dental manipulations related to the treatment of caries and its complications in temporary and permanent teeth, the roots of which are at different stages of development. The teacher monitors the work of students, gives explanations, emphasizes the features of dental interventions in the teeth, the roots of which are unformed or resorbed.
  5. Control of the final level of students' knowledge - 15 minutes. Conducted in the form of solving test tasks (level  $\alpha - 3$ ) or individual oral interview, solving situational problems.
- At the end of the practical lesson, the teacher summarizes it, gives students tasks for independent work, points to the key issues of the next topic and offers a list of recommended reading for independent study.

To implement the above method of organizing practical classes in the first lesson, each student is provided with a detailed work plan during the period of study of the discipline, as well as the conditions for its implementation. This plan includes:

- a list of theoretical knowledge of the discipline to be mastered by the student;
- a list of practical skills that must be performed by each student during the study of the discipline;
- algorithms for performing basic dental manipulations on phantoms, models or removed temporary and permanent teeth that are at different stages of root formation;
- workbook for self work of the student (SW) in preparation for practical classes, in which you should perform in writing 5-6 tasks for each topic.

**Self work of students (SW) provides:**

- preparation for practical classes;
- independent elaboration of topics that are not included in the classroom plan, but are controlled and evaluated by the teacher during the final module control.

**8. The form of final control in accordance with the curriculum is a differentiated test**

Evaluation criteria

Control measures include current and final semester control.

**9. Current control** is carried out during training sessions and aims to verify the assimilation of students' learning material.

Evaluation of current educational activities. During the assessment of mastering each topic for the current educational activity of the student grades are set on a 4-point (traditional) scale, taking into account the approved assessment criteria for the discipline. This takes into account all types of work provided by the curriculum. The student must receive a grade on each topic. Forms of assessment of current educational activities are standardized and include control of theoretical and practical training.

Grades on the traditional scale at the end of the semester are converted into points.

The maximum number of points that a student can score for the current academic activity in the study of the discipline is 122 points.

The minimum number of points that a student must score for the current academic activity to enroll in the discipline is 72 points.

The current assessment of the student's learning activities **in each practical lesson** is carried out in accordance with the specific objectives of each topic. Assessment of current learning activities in the practical lesson consists of:

1) Assessments of independent **work of the student (SWS) in preparation** for a practical lesson. It is done by checking the written performance of the tasks set out in the Workbook to prepare for each topic. The share of the assessment for the syllabus with homework is 25% of the total assessment for classes in points. If the student did not complete the task for SW and did not provide a syllabus for testing to the teacher, the traditional grade for the lesson will be **lower by 1 point**.

2) Assessment of the level of knowledge of students, which is carried out by solving 10 test problems of format A (level  $\alpha$ -2) or assessment of answers to control theoretical questions.

*Grade "5"* is given for this stage of the lesson in the case when the student correctly answered 81-100% of the test tasks or gave the correct, complete answers to 3 control questions of the teacher.

*Grade "4"* is given when the student correctly answered 71-80% of the test tasks or gave correct, complete answers to 2 control questions of the teacher and one incomplete or inaccurate answer - to the third.

*Grade "3"* is given when the student correctly answered 61-70% of the test tasks or gave the correct answer to one test question of the teacher and two incomplete or inaccurate answers to two questions.

*Grade "2"* is given when the student correctly answered less than 60% of the test tasks, gave the correct answer to only one or did not answer any test questions of the teacher

3) Assessments of mastering practical skills in accordance with professional algorithms during the main stage of practical training. It is carried out during the development by the student of practical skills on a phantom or at written statement of algorithm of its performance.

*Grade "5"* is given for this stage of the lesson in the case when the student correctly, in accordance with the professional algorithm, performed on the phantom dental manipulation provided for the purpose of the practical lesson.

*Grade "4"* is given when the student knows the sequence of actions in accordance with the professional algorithm, with minor errors performed on the phantom dental manipulation, provided for the purpose of practical training.

*Grade "3"* is given when the student does not fully know the professional algorithm for performing a particular manipulation, errors are assumed when performing on the phantom of dental manipulation, provided for the purpose of practical training.

*Grade "2"* is given when the student does not know the professional algorithm for performing dental manipulation, can not perform on the phantom dental manipulation, provided for the purpose of practical training.

#### **10. Form of final control of academic success differentiated test.**

Semester differentiated test is a form of final control, which consists in assessing the student's mastery of educational material in the discipline on the basis of current control and completed individual test tasks in the last lesson.

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

For disciplines whose form of final control is differential credit: The grade in the discipline, which ends with a differentiated credit is defined as the sum of points for current learning activities (not less than 72) and points for individual test tasks in the last lesson (not less than 50).

The maximum number of points that a student can score for academic activities in the study of the discipline is 200 points (120 points for current activities + 80 points for differential credit)

The minimum number of points that a student must score for academic activities to enroll in the discipline is 122 points (72 points for current activities + 50 points for differential credit).

**The calculation of the number** of points is based on the grades obtained by the student on a 4-point (national) scale during the study of the discipline, by calculating the arithmetic mean (CA), rounded to two decimal places. The resulting value is converted into points on a multi-point scale as follows:

$$x = \frac{CA \times 120}{5}$$

For convenience, the table of recalculation on a 200-point scale is given:

**Recalculation of the average grade for current activity in a multi-point scale for disciplines ending with a differential credit:**

4-grade scale	200-grade scale	4-grade scale	200-grade scale	4- grade scale	200-grade scale	4- grade scale	200-grade scale
5	120	4.45	107	3.91	94	3.37	81
4.95	119	4.41	106	3.87	93	3.33	80
4.91	118	4.37	105	3.83	92	3.29	79
4.87	117	4.33	104	3.79	91	3.25	78
4.83	116	4.29	103	3.74	90	3.2	77
4.79	115	4.25	102	3.7	89	3.16	76
4.75	114	4.2	101	3.66	88	3.12	75
4.7	113	4.16	100	3.62	87	3.08	74
4.66	112	4.12	99	3.58	86	3.04	73
4.62	111	4.08	98	3.54	85	3	72
4.58	110	4.04	97	3.49	84	Less than 3	Not enough
4.54	109	3.99	96	3.45	83		
4.5	108	3.95	95	3.41	82		

**Student's self work** is assessed during the current control of the topic in the relevant lesson. Assimilation of topics that are submitted only for independent work is controlled during the final control. Discipline scores for students who have successfully completed the program are converted into a traditional 4-point scale according to the absolute criteria, which are given in the table below:

<b>Points from discipline</b>	<b>Mark according 4-grade scale</b>
from 170 to 200 points	5
from 140 to 169 points	4
from 139 points to minimal quantity of points	3
Lower than minimal quantity of points	2



**Methodical support** (educational content (synopsis or extended plan of lectures), plans of practical seminars, tasks for laboratory works, independent work, questions, tasks or cases for current and final control of knowledge and skills of students, complex control work, post-certification monitoring of acquired knowledge and skills in the discipline).

### **Methodical providing of discipline**

#### **1. Texts of lectures on the discipline**

2. **Methodical guide** of practical classes for teachers - according to the number of topics.

3. Test tasks (to control the initial and final level of knowledge) - according to the number of topics.

4. **Methodical developments** for the organization of independent work **of students** in preparation for practical classes - according to the number of topics.

5. **Workbook** for students.

6. **Algorithms** for performing dental manipulations on phantoms.

7. The list of theoretical questions (**60 questions**) to the differentiated test in the discipline "Propaedeutics of pediatric therapeutic dentistry".

8. List of practical skills (**20 skills**) for the differential test in the discipline "Propaedeutics of Pediatric Therapeutic Dentistry".

9. **80 test tasks (in 6 versions)** to the differentiated test in the discipline "Propaedeutics of Pediatric therapeutic dentistry".

13. Recommended literature.

### Basic literature

1. Pediatric therapeutic dentistry [Text] : textbook / L. A. Khomenko [et al.] ; ed. L. A. Khomenko. - Kiev : Book-plus, 2015. - 240 p.
2. Хоменко Л.О., Чайковський Ю.Б., Смоляр Н.І., Савичук О.В., Остапко О.І., Біденко Н.В. та ін. Терапевтична стоматологія дитячого віку Том 1. – Київ: Книга плюс, 2014. – 432.
3. Хоменко Л.А., Кисельникова Л.П., Смоляр Н.И., Чайковский Ю.Б., Савичук А.В., Остапко Е.И., Биденко Н.В., Шматко В.И., Голубева И.Н., Кононович Е.Ф., Солонько Г.М. и др.. Терапевтическая стоматология детского возраста.— Київ: Книга плюс, 2013. — 864с.
4. Терапевтическая стоматология. Фантомный курс /Под редакцией проф. А.В.Борисенко, Киев, “Медицина”, 2009.- 400с.
5. Борисенко А.В., Сідельнікова Л.Ф., Антоненко М.Ю., Коленко Ю.Г., Шекера О.О. Практикум з терапевтичної стоматології (фантомний курс). Посібник. — Київ: Книга-плюс. — 2011. — 512 с.
6. Пропедевтика дитячої терапевтичної стоматології Навч. посібник / Р.В. Казакова, М.А. Лучинський, М.Н.Воляк та ін. /за ред. Р.В.Казакової. - К.: Медицина, 2006. - 272 с.
7. Николаев А.И., Цепов Л.М. Фантомный курс терапевтической стоматологии, М.:Мед-пресс, 2015. – 432с.

Additional literature:

1. Хоменко Л.А., Биденко Н.В. Практическая эндодонтия инструменты, материалы и методы.- Киев, Книга плюс, 2002.- 216с.
2. Даггал М.С. Лечение и реставрация молочных зубов (Иллюстр. рук-во) / М.С.Даггал, М.Е.Дж. Керзон, С.А.Фэйл, К.Дж.Тоумба, А.Дж.Робертсон; пер. с англ. под ред. проф. Т.Ф.Виноградовой. – 2-е изд. – М. : МЕД Пресс информ, 2009. – 160 с.
3. Детская стоматология. Руководство Р. Р. Велбери, М.С. Даггал, М.Т. Хози М.: ГЭОТАР-Медиа, 2014. – 456 с.
4. Эндодонтия подросткового и взрослого возраста / Бараньская-Гаховская М. Львів: ГалДент, 2011. – 496 с.
5. Ломиашвили Л. Искусство моделирования и реставрации зубов. 2-е издание / Ломиашвили Л., Аюпова Л. / Омск, 2014. - 436 с.
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7. Curzon M.E.J., Roberts J.F., Kennedy D.B. Kennedy’s pediatric operative dentistry. – Wright, 1996. – 198 p.
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10. Stanley J.N. Wheeler’s dental anatomy, physiology, and occlusion / J.N. Stanley, M.M. Ash. – Saunder Elsevier. – 2010. – 401 p.
11. Fuller J.L. Schulein Concise Dental Anatomy and Morphology / J.L. Fuller, G.E. Denehy, M.T.Schulein. - University of Iowa, Publications Dept, 1999. – 218 p.