

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

"APPROVED"

Acting Head of the Department

 Oleksandr BIDA

WORKING PROGRAM OF EDUCATIONAL DISCIPLINE

"Prevention of dental diseases"

LEVEL OF HIGHER EDUCATION Second (master's) level

DEGREE OF HIGHER EDUCATION Master's degree

BRANCH OF KNOWLEDGE 22 Healthcare

SPECIALTY 221 Dentistry

COURSE 3

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

Kyiv 2022


Working program of educational discipline Prevention of dental diseases for the training of students of higher education of the second (master's) level of higher education in the specialty 221 *Dentistry* .

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

Agreed

First Vice-Rector



Oleksandra SOROKA

INTRODUCTION

The study program of the study discipline "Prevention of dental diseases" is compiled in accordance with the project of the Standard of Higher Education of Ukraine **of the second (master's) level**

(the name of the higher level education)

industry knowledge **22 Healthcare**

(code and name of field of knowledge)

specialties **221 Dentistry**

(code and specialty name)

Description of the academic discipline (abstract)

Prevention of dental diseases is an educational discipline that enables students to master certain skills of conducting preventive examinations and epidemiological dental surveys of the population, identifying and eliminating risk factors for the occurrence of dental diseases, organizing and implementing preventive measures for children of different ages at the individual and group levels, as well as methods of dental education and motivation of the population to support dental health. They will use the knowledge and skills acquired in this way during practical activities.

The peculiarity of teaching the prevention of dental diseases is that it is from this subject that the introduction to the clinical work of a pediatric dentist begins, while prevention combines theoretical and clinical disciplines.

Description of the curriculum in the discipline

The structure of the academic discipline	Number of hours				Semester	Types of control
	In total	Auditory		S.S		
		Lectures	Practical			
Prevention module dental diseases	120	10	60	50	V, VI	exam
ECTS credits	4					

The subject of study of the academic discipline " **Prevention of dental diseases"**
are

- purpose, tasks, methods of prevention of dental diseases;
- anatomical and physiological features of the structure of the oral cavity in children of different ages;
- periods of development of temporary and permanent teeth, stages of development of the mucous membrane of the oral cavity and periodontium in children;
- dental examination of the child with determination of dental status, caries indices, hygienic and periodontal indices;
- examination of the patient according to the WHO method and analysis of the WHO card;
- cariesogenic situation in the oral cavity;
- structure and biological properties of enamel;
- degree of tooth enamel resistance;
- protective mechanisms of the oral cavity and the participation of microflora in the occurrence of major dental diseases;
- methods, means and objects of oral hygiene;
- controlled brushing of children's teeth and professional oral hygiene;
- oral hygiene methods;
- forms, methods of sanitary and educational work and hygienic education;
- means of endogenous prevention of dental caries for children of different ages;
- means of exogenous prevention of dental caries for children of different ages;
- remineralizing therapy;
- sealing of fissures;
- assessment of caries prevention effectiveness;

- the main etiopathogenetic factors of periodontal diseases in children of different ages and ways of their prevention;
- measures to prevent periodontal diseases in children of different ages;
- means for hygienic care of the oral cavity in case of periodontal tissue diseases;
 - components and organizational principles of a comprehensive system of prevention of dental diseases in children;
- the effectiveness of the comprehensive prevention system.

Interdisciplinary connections:

"Prevention of dental diseases" as an educational discipline:

a) is based on students' previous study of human anatomy, histology, embryology and cytology, medical biology, medical chemistry, biological and bioorganic chemistry, microbiology, virology and immunology;

b) is based on students' study of the propaedeutic disciplines of the therapeutic profile: propaedeutics of therapeutic dentistry, propaedeutics of children's therapeutic dentistry and orthodontics and is integrated with these disciplines;

c) lays the foundations for students to study such clinical disciplines as children's therapeutic dentistry, therapeutic dentistry and orthodontics;

d) integrates with the following clinical disciplines: children's therapeutic dentistry, therapeutic dentistry, orthodontics.

1. The purpose and tasks of the educational discipline

1.1. **The purpose** of teaching the academic discipline **"Prevention of dental diseases"** is the formation of knowledge and practical skills regarding preventive measures aimed at maintaining a high level of dental health and preventing the occurrence of diseases.

1.2. **The main tasks** of studying the discipline **"Prevention of dental diseases"** are:

- carry out an epidemiological analysis of the dental morbidity of the population;
- substantiate hygienic measures for the prevention of dental diseases;
- to plan primary and secondary prevention of the most common dental diseases in children of different ages;
- carry out primary and secondary prevention of the most common dental diseases in children of different ages;
- plan measures to prevent the spread of dental diseases, evaluate their effectiveness.

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

According to the requirements of the Standard, the discipline ensures that students acquire *the following competencies*:

- **integral:**
- The ability to solve complex tasks and problems in the field of health care in the specialty "Dentistry" in professional activity or in the learning process, which involves conducting research and/or implementing innovations and is characterized by the uncertainty of conditions and requirements.
- **general:**
- 1. Ability to abstract thinking, analysis and synthesis; the ability to learn and be modernly educated.
- 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 national language both orally and in writing.
Ability to communicate in another language.

5. Skills in using 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. The ability to act on the basis of ethical considerations (motives).
13. Skills of performing safe activities.
14. The ability to evaluate and ensure the quality of the work performed.
15. The desire to preserve the environment.
16. The ability to act socially responsibly and civically.

- special (professional, subject):

1. Recognize the moral and ethical and professional rules of activity of a pediatric dentist.
 2. Understand the moral and deontological principles of a medical specialist and the rules of professional subordination in a children's dentistry clinic.
 3. Learn to promote a healthy psychological microclimate in the team; learn the basics of the legal norms of the relationship pediatric dentist → patient (child).
 4. Demonstrate the ability to perform an algorithm for examining children, an index assessment of the state of the oral cavity and knowledge of general issues of dental disease prevention :
- to know the purpose, tasks, methods of prevention of dental diseases;
 - to study the anatomical and physiological features of the structure of the oral cavity in children of different ages;

- know the periods of development of temporary and permanent teeth, the stages of development of the mucous membrane of the oral cavity and the periodontium in children;
- conduct a dental examination of the child with determination of dental status, caries indices, hygienic and periodontal indices;
- examine the patient according to the WHO method and conduct an analysis of the WHO card;
- carry out an epidemiological analysis of the dental morbidity of the population.

5. Demonstrate knowledge of caries resistance, detection of a cariogenic situation and professional oral hygiene in children:

- detection of a cariesogenic situation in the oral cavity;
- to know the structure and biological properties of enamel;
- know and be able to determine the degree of resistance of tooth enamel;
- know the protective mechanisms of the oral cavity and the participation of microflora in the occurrence of major dental diseases;
- to know the methods, means and subjects of oral hygiene;
- to recommend oral hygiene methods, tools and items depending on the dental status;
- carry out controlled brushing of children's teeth and professional oral hygiene;
- conduct training in oral hygiene methods;
- know the forms and methods of sanitary and educational work and use them for hygienic education.

6. Distinguish the features of the application of the principles of prevention of caries and periodontal diseases in children, depending on age. To master

the principles and methods of a comprehensive system of prevention of dental diseases:

- plan and recommend means of endogenous prevention of dental caries for children of different ages;
- plan and recommend means of exogenous dental caries prevention for children of different ages;
- carry out remineralizing therapy;
- carry out non-invasive and invasive sealing of fissures;
- evaluate the effectiveness of caries prevention;
- to know the main etiopathogenetic factors of periodontal diseases in children of different ages and ways of their prevention;
- plan preventive measures for periodontal diseases in children of different ages;
- prescribe means for hygienic care of the oral cavity in case of periodontal tissue diseases;
- to know the components and organizational principles of a comprehensive system of prevention of dental diseases in children;
- evaluate the effectiveness of the comprehensive prevention system.

Detailing of competencies in accordance with the NRK descriptors in the form of "Competence matrix

” **Matrix of competences**

No	Competence	Knowledge	Skill	Communi cation	Autonomy and responsibility
	<i>General competences</i>				

1.	Ability to abstract thinking, analysis and synthesis; the ability to learn and be modernly educated.	To know the current trends in the development of the industry and the indicators characterizing them.	Be able to analyze professional information, make informed decisions, acquire modern knowledge.	Establish appropriate connections to achieve goals.	To be responsible for the timely acquisition of modern knowledge.
2.	Knowledge and understanding of the subject area and understanding of the profession.	To know the peculiarities of the professional activity of a dentist.	To be able to carry out a professional activities that require updating and integration of knowledge.	To form a strategy in activity.	Be a responsible for continuous professional development with a high level of autonomy.

3.	Ability to apply in practical situations.	Know the methods of implementing knowledge in solving practical tasks.	Be able to use professional knowledge to solve practical tasks.	To establish connections with subjects of practical activity.	To be responsible for the validity of the decisions made.
4.	Ability to communicate in the national language both orally and in writing. Ability to communicate in a second language.	Know the state language, including the professional direction. Possess 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.	To form a strategy in activity.	Be responsible for continuous professional development with a high level of autonomy.

			on.		
5.	Skills in using information and communication technologies.	Have modern knowledge in the field of information and communication technologies used in professional activities.	To be able to use information and communication technologies in a professional field that needs updating and integration of	Use information and communication technologies in professional activities.	Be responsible for continuous development of professional knowledge and skills.

			knowledge.		
6.	Ability to search, process and analyze information from various sources.	Have the necessary knowledge in the field of information technologies used in professional activities.	To be able to use information technologies in the professional field to search, process and analysis of new information from various sources.	Use technologies in activities.	Be responsible for continuous development of professional knowledge and skills.
7.	Ability to adapt and act in a	Know the methods of	To be able to use	To establish	To be responsible

	new situation; ability to work autonomously	implementing knowledge in solving practical tasks.	professional knowledge for adaptation and actions in new situation.	connections with subjects of practical activity.	for the quality of the performance of professional tasks in new situation.
8	Ability to identify, pose and solve problems.	Know the methods of implementing knowledge in identifying, setting and solving professional problems activity	To be able to use professional knowledge for detection, formulation and solution problem ms of professional activity.	To establish contacts with the subjects of practical activity with for the purpose of detection, staging and	To be responsible for the validity of the decisions made regarding the solution problem ms of professional activity.
				solution n proble ms of professional activity.	
9	The ability	Know the	Be	To	To be

	to choose a communication strategy.	methods of implementing knowledge in choosing a communication strategy with patients and colleagues.	able to use knowledge to choose a strategy for communicating with patients and colleagues.	form a strategy in activity.	are responsible for continuous professional development with a high level of autonomy.
10	Ability to work in a team.	Know the ways of collective interaction while working in a team.	Be able to use knowledge to choose	To form a strategy in	Be are responsible for continuous profess

			a strategy comm unication during collective interaction.	activity.	ional development.
1	1 Skills of interpersonal interaction.	Know the methods of interpersonal interaction when communicating with colleagues and patients.	Be able to use knowledge to choose a strategy comm unication during	To form strategy in activity.	Be responsible for continuous profess ional development with a high level of

			interpersonal interaction		autonomy.
1	The ability to	Know	Use	the	To bear
2	act on the basis of ethical considerations (motives).	the moral and ethical principles of a medical specialist and the rules of professional subordination.	the moral and ethical principles of a medical specialist and the rules of professional subordination in practical activities.	moral and ethical principles of a medical specialist and the rules of professional subordination during professional activity.	persona l responsibility for observing the moral and ethical principles of a medical specialist and the rules of professional subordination

3	1	Skills of performing safe activities.	The ability to assess the level of danger when performing professional tasks.	Be able to carry out professional activities in compliance with safety rules	To ensure high-quality performance of professional work in compliance with safety rules.	Be personally responsible for compliance with safety rules when performing professional duties tasks
4	1	The ability to evaluate and ensure the quality of the work performed.	Ability to evaluate and ensure quality in the performance of professional tasks.	To know the methodical assessment of indicators of the quality of activity.	Be able to provide quality performance of professional work.	Establish connections to ensure quality performance of works.
5.	1	The desire to preserve environment.	The ability to assess the condition environment t.	Be able to analyze indicators environmental quality .	Ensure quality performance professional tasks in terms	Carry personal correspondence for compliance with the rules

				of environmental protection.	of environmental protection while performing professional tasks.
6	1 The ability to act socially responsibly and civically.	Know your social and public rights and responsibilities.	To form one's civic consciousness, to be able to act in accordance with it.	The ability to convey one's social position	To bear responsibility for one's civic position and activities.
	<i>Special (professional competences)</i>				
1.	Recognize moral and ethical	Know the basics	Use in practical	adhere to	Personal carry al

	professional rules of activities of a pediatric dentist.	of ethics of the dentist.	activity of ethics of a dentist.	comm unication with patients and colleagues Ethical code of the dentist.	responsib ility for compliance with provisions in practical activities Code of of the dentist.
2.	Understand moral and deontological the principles of a medical specialist and the rules of professional subordination in a children's dentistry clinic.	Know moral and deontological principles of a medical specialist and rules of professional subordination in a children's dentistry clinic.	Use in practical activiti es morall y deontol ogical princip les of a medical specialist and rules of professional subordination in a children's dentistry clinic.	Follow during profess ional activit y, moral and deontological principles of a medical specialist and rules of professional subordinatio n in a children's dentistry clinic.	Carry personal responsi bility for observing the moral and deontological principles of a medical specialist and the rules of professional subordination in a children's dentistry clinic.

3.	Learn to promote a healthy psychological microclimate in the team; learn the legal norms of the children's dentist relationship → patient (child).	Know the current legal norms of the relationship "children's dentist → patient (child)".	To use the legal norms of the relationship "children's dentist → patient (child)" in practical activities . To be able to form a healthy psychological microclimate in the team.	To be observed during professional activity valid legal norms of the relationship "children's dentist → patient (child)". Support health y psycho logical microclimate in the team.	To bear personal responsibility for compliance with current legal norms of the relationship "childre n's dentist → patient (child)".
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4.	<p>Demonstrate the ability to perform an algorithm for examining children, an index assessment of the state of the oral cavity and knowledge of general issues of dental disease prevention :</p> <ul style="list-style-type: none"> - learn the purpose, tasks, methods of prevention of dental diseases; - learn the anatomical and physiological features of the structure of the oral cavity in children of different ages; -learn the periods of development of 	<p>Know the purpose, tasks, methods of prevention of dental diseases;</p> <ul style="list-style-type: none"> - to know the anatomical and physiological features of the structure of the oral cavity in children of different ages; - to know the periods of development of temporary and permanent teeth, the stages of development of the mucous membrane of the oral cavity and the periodontium in children; - to know how to conduct a dental 	<p>Be able to conduct a dental examination of a child with determination of dental status, caries indices, hygienic and periodontal indices;</p> <ul style="list-style-type: none"> - examine the patient according to the WHO method and conduct an analysis of the WHO chart; - carry out an epidemiological analysis 	<p>Interact with children during a child's dental examination to determine dental status, caries indices, hygienic and periodontal indices.</p>	<p>To bear personal responsibility for the correctness of the conduct of dental examination and determination of caries indices, hygienic and periodontal indices.</p>
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	<p>temporary and permanent teeth, the stages of development of the mucous membrane of the oral cavity and the periodontium in children;</p> <p>- conduct a dental examination of the child by definition</p> <p>dental status, indexes</p>	<p>examination of a child with determination of dental status, caries indices, hygienic and periodontal indices;</p> <p>- know how to examine a patient</p>	<p>of dental morbidity in the population.</p>		
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	<p>caries, hygienic and periodontal indices;</p> <p>- to conduct a patient examination according to the WHO method and to analyze the WHO map;</p> <p>- carry out an epidemiological analysis of dental morbidity in the population.</p>	<p>analyze the WHO map according to the WHO methodology.</p>			
5.	<p>Demonstrate knowledge of caries resistance, detection of cariogenic situations and professional oral hygiene in children:</p> <p>master the methods of detecting caries in the oral cavity;</p> <p>learn the structure and biological properties of enamel;</p> <p>determine the degree of resistance of tooth enamel;</p> <p>learn the protective mechanisms of the oral cavity and the</p>	<p>Know the structure and biological properties of enamel;</p> <p>know how to determine the degree of tooth enamel resistance;</p> <p>know the protective mechanisms of the oral cavity and the participation of microflora in the occurrence of major dental diseases;</p> <p>to know the methods, means and</p>	<p>Be able to carry out controlled brushing of children's teeth and professional oral hygiene;</p> <p>- to be able to teach children oral hygiene methods;</p> <p>- to</p>	<p>Communicate and interact with colleagues and teachers, parents during sanitary and educational work among children and parents</p>	<p>Bear personal responsibility for the correct performance of dental manipulations (professional oral hygiene in children).</p>

<p>participation of microflora in the occurrence of basic dental diseases;</p> <p>to learn the means and objects of oral hygiene;</p> <p>to recommend oral hygiene methods, tools and items depending on the dental status;</p> <p>carry out controlled brushing of children's teeth and professional oral hygiene;</p> <p>conduct training in oral hygiene methods;</p> <p>learn the forms and methods of sanitary and educational work and use them for hygienic purposes teaching.</p>	<p>subjects of oral hygiene;</p> <p>to know which methods, means and items of oral hygiene can be recommended to the child depending on the dental status;</p> <p>know how to carry out controlled brushing of children's teeth and professional oral hygiene;</p> <p>know how to teach oral hygiene methods;</p> <p>know the forms and methods of sanitary and educational work and use them for hygienic education.</p>	<p>carry out sanitary and educational work among children on hygienic care of the oral cavity.</p>	<p>on hygienic care of the oral cavity.</p>	

6.	Distinguish the	Know the	Be	Un	To bear
	<p>features of the application of the principles of prevention of caries and periodontal diseases in children, depending on age.</p> <p>To master the principles and methods of a comprehensive system of prevention of dental diseases:</p> <ul style="list-style-type: none"> - plan and recommend means of endogenous dental caries prevention for children of different ages; - plan and recommend means of exogenous prevention of dental caries for children of different ages; - to carry out remineralizing therapy; - perform non-invasive and invasive sealing of fissures; - evaluate the effectiveness of caries prevention; 	<p>means of endogenous prevention of dental caries for children of different ages;</p> <ul style="list-style-type: none"> - means of exogenous dental caries prevention for children of different ages; - know the main ones etiopathogenetic factors of periodontal diseases in children of different ages and ways of their prevention; - to know the means for hygienic care of the oral cavity in case of periodontal tissue diseases. - to know the components and 	<p>able to carry out remineralizing therapy;</p> <ul style="list-style-type: none"> - perform non-invasive and invasive sealing of fissures; - to be able to evaluate the effectiveness of caries prevention; - plan preventive measures for periodontal diseases in children of different ages; - 	<p>derstand the importance of remineralizing therapy;</p> <ul style="list-style-type: none"> - non-invasive and invasive sealing of fissures; - conducting even preventive measures of periodontal diseases in children of 	<p>personal responsibility for the correctness of performing dental manipulations when carrying out:</p> <ul style="list-style-type: none"> remineralizing therapy; non-invasive and invasive fissure sealing; periodontal disease prevention measures ; when prescribing means for hygienic care of the oral cavity.

	<p>- learn the main etiopathogenetic factors of periodontal diseases in children of different ages and ways of their prevention;</p> <p>- plan preventive measures for periodontal diseases in children of different ages;</p> <p>-prescribe means for hygienic care of the oral cavity in case of periodontal tissue diseases;</p> <p>- learn the components and organizational principles of a comprehensive system of prevention of dental diseases in children;</p> <p>- evaluate the effectiveness of the comprehensive prevention system.</p>	<p>organizational principles of a comprehensive system of prevention of dental diseases in children.</p>	<p>prescribe means for hygienic care of the oral cavity in case of periodontal tissue diseases.</p> <p>- evaluate efficiency of comprehensive prevention system.</p>	<p>different ages;</p> <p>- appointment of means for hygienic care of the oral cavity in case of periodontal tissue diseases .</p>	
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Learning outcomes:

Integrative final program learning outcomes, the formation of which is facilitated by the educational discipline

"Prevention of dental diseases"

1. Demonstrate mastery of the moral and deontological principles of a medical specialist and the principles of professional subordination in a children's therapeutic dentistry clinic.
2. Demonstrate the ability to perform an algorithm for examining children, an index assessment of the state of the oral cavity and knowledge of general issues of dental disease prevention :
 - to know the purpose, tasks, methods of prevention of dental diseases;
 - to study the anatomical and physiological features of the structure of the oral cavity in children of different ages;
 - know the periods of development of temporary and permanent teeth, the stages of development of the mucous membrane of the oral cavity and the periodontium in children;
 - conduct a dental examination of the child with determination of dental status, caries indices, hygienic and periodontal indices;
 - examine the patient according to the WHO method and conduct an analysis of the WHO card;
 - carry out an epidemiological analysis of the dental morbidity of the population.
3. Demonstrate knowledge of caries resistance, detection of a cariogenic situation and professional oral hygiene in children:
 - detection of a cariesogenic situation in the oral cavity;
 - to know the structure and biological properties of enamel;
 - know and be able to determine the degree of resistance of tooth enamel;

- know the protective mechanisms of the oral cavity and the participation of microflora in the occurrence of major dental diseases;
- to know the methods, means and objects of oral hygiene;
- to recommend oral hygiene methods, tools and items depending on the dental status;
- carry out controlled brushing of children's teeth and professional oral hygiene;
- conduct training in oral hygiene methods;
- know the forms and methods of sanitary and educational work and use them for hygienic education.

4. Distinguish the features of the application of the principles of prevention of caries and periodontal diseases in children, depending on age. To master the principles and methods of a comprehensive system of prevention of dental diseases:

- plan and recommend means of endogenous prevention of dental caries for children of different ages;
- plan and recommend means of exogenous dental caries prevention for children of different ages;
- carry out remineralizing therapy;
- carry out non-invasive and invasive sealing of fissures;
- evaluate the effectiveness of caries prevention;
- to know the main etiopathogenetic factors of periodontal diseases in children of different ages and ways of their prevention;
- plan preventive measures for periodontal diseases in children of different ages;
- prescribe means for hygienic care of the oral cavity in case of periodontal tissue diseases;
- to know the components and organizational principles of a comprehensive system of prevention of dental diseases in children;

- evaluate the effectiveness of the comprehensive prevention system.

Learning outcomes for the discipline.

As a result of studying the academic discipline "Prevention of dental diseases", the student should **know**.

1. Prevention of dental diseases: definition, purpose, tasks, methods, determination of economic efficiency.
2. Anatomical and physiological features of the structure of the oral cavity in the age aspect.
3. Development of the maxillofacial region, teeth, oral mucosa and periodontium.
4. Periods of development of temporary and permanent teeth. The influence of the general state of the body on the development of teeth.
5. Signs of physiological teething in children. Timing of laying, mineralization, eruption of temporary teeth.
6. Terms of formation and resorption of the roots of temporary teeth. Types and types of root resorption of temporary teeth.
7. Timings of establishment, mineralization, eruption and root formation of permanent teeth.
8. Factors of the embryonic and post-embryonic periods of development that affect the laying and mineralization of teeth. The role of heredity and environmental factors in the development of caries and non-carious lesions of teeth.
9. Algorithm for examination of a dental patient.
10. Dental formula: definition and purpose. Recording of clinical (by graphic-digital and two-digit systems) and anatomical dental formula.
11. Anatomical and topographic features of temporary and permanent teeth in children. Differences between temporary and permanent teeth.

12. Methodology of dental examination according to WHO. WHO map, its characteristics. Evaluation of results.
13. Dental deposits. Their role in the pathogenesis of dental caries and periodontal diseases.
14. Hygienic indices. Evaluation of the hygienic condition of the oral cavity according to Fedorov-Volodkina, Green-Vermillion, Silnes-Lowe.
15. Methods of brushing teeth. Controlled brushing of teeth in organized children's groups.
16. Subjects of oral hygiene. Classification. Indications for use.
17. Means of hygienic care of the oral cavity. Classification, physical and chemical properties. Indications for use.
18. Choice of oral hygiene products and items depending on dental status.
19. Professional oral hygiene: methods and equipment.
20. Hygienic education and upbringing. Organization. Conducting methods.
21. Tooth enamel. Histological structure, chemical composition, physical properties. "Maturation" of enamel after tooth eruption.
22. Immature enamel as a possible cariesogenic factor. Methods and means of preventive influence.
23. Structure and biological properties of dentin.
24. Homeostasis of hard tooth tissues after eruption. Mechanisms of regulation.
25. Biological properties of tooth pulp. Modern ideas about metabolic processes in tooth enamel and pulp.
26. Saliva. Its composition, properties, role in enamel "ripening" and in maintaining the homeostasis of hard tooth tissues.
27. Oral microflora. Its physiological significance, influence on the development of caries and periodontal diseases. Methods and means of preventing its pathological effects.

28. Epidemiology of major dental diseases. Epidemiological examination in dentistry. Methods, accounting forms.
29. Prevalence and intensity of dental caries in children. The influence of climatic, geographical, socio-economic, environmental factors on the prevalence and intensity of dental caries in children.
30. Caries indices.
31. Determination of acid resistance of enamel (TER-test, KOSHER-test, CRT-test).
32. Cariesogenic situation in the oral cavity. Factors leading to its development, their detection and elimination.
33. Carbohydrates in the pathogenesis of caries. Mechanism of action. Prevention methods.
34. Scientific rationale for the primary prevention of dental caries.
35. Protective mechanisms of the oral cavity. Their role in the prevention of dental caries and periodontal diseases.
36. Periodontal disease, definition, structure. General and local etiological factors of periodontal diseases.
37. Index assessment of periodontal tissue condition (SRI, KPI, RMA, RI, Pisarev-Shiller test).
38. Sanitary education in the system of comprehensive prevention of dental diseases. The main forms of sanitary and educational work with different contingents of the population.
39. Fluoride, influence of deficiency and excess of fluoride in drinking water on the development of pathology of hard tissues of teeth and periodontal tissues.
40. Components of the preparatory period in the organization of primary caries prevention. Their characteristics.
41. Methods and means of exogenous prevention of dental caries in children.

42. The importance of calcium, phosphorus and fluorine in the system of exogenous caries prevention. Preparations of calcium, phosphorus and fluorine, the mechanism of their action.
43. Methods and means of endogenous prevention of caries during the period of laying and formation of teeth (in pregnant and nursing women, infants).
44. Exogenous caries prevention with fluoride preparations. Conducting methodology, evaluation of effectiveness. Mechanism of action.
45. Sealing of fissures as a method of preventing dental caries, indications, methods.
46. Sealants: classification, composition, properties.
47. Types and methods of endogenous prevention of dental caries in children. Planning the prevention of dental caries depending on the severity of factors of the cariogenic situation. Interaction with a pediatrician.
48. Ways of entry and saturation of fluorine in the human body. Fluorine content in drinking water. The mechanism of caries-prophylactic action of fluorides.
49. The need for macro- and microelements, vitamins of children of different ages. Modern medicines containing macro- and microelements, vitamins and their purpose for children of different ages.
50. Types of exogenous prevention of dental caries in children of different ages. Monitoring the effectiveness of exogenous caries prevention.
51. Means for local caries prevention, purpose, methods of application. The main etiopathogenetic factors of periodontal diseases in children of different ages and ways of their prevention. Methods of prevention of periodontal diseases. Means used for the prevention of periodontal diseases.
52. The use of oral hygiene methods for the prevention of periodontal diseases. Appointment of means for hygienic care of the oral cavity in diseases of periodontal tissues.
53. Breast feeding. Its role in the prevention of dental diseases.

54. The role of rational nutrition in caries prevention.
55. The role of general somatic diseases of a pregnant woman and child in the genesis of caries. The role of the dentist, pediatrician, gynecologist in the primary prevention of dental caries in children. Organization, implementation methods.
56. Comprehensive system of tooth caries prevention. The main elements of the program. Criteria for evaluating the effectiveness of the program for the prevention of dental caries and periodontal diseases.
57. Organization of comprehensive prevention of dental caries. State, group, individual levels of implementation.
58. Individual prevention of periodontal diseases. Means and items of hygiene, methods of their use.
59. Modern principles of organization and methods of prevention of dental diseases.
60. Planning, organization and implementation of preventive measures in organized children's groups.
61. Analysis and assessment of the effectiveness of primary prevention of dental caries and periodontal diseases.
62. Sanitary stomatological education - motivation of the population to maintain the health of the oral cavity.

As a result of studying the academic discipline " **Prevention of dental diseases** ", the student should be **able to** .

1. Be able to carry out an examination according to the algorithm. Record dental formula.
2. Determine caries indices (CPV of teeth, CP of surfaces, CP of teeth, CPV+CP of teeth) and the degree of caries activity.
3. To determine the prevalence of caries, indices of increase in intensity of caries and reduction of caries.

4. Fill out the WHO epidemiological survey card.
5. Organization of sanitary education (conversation, sanitary bulletin, etc.).
6. Determine oral hygiene indices (Fedorova-Volodkina, Green-Vermilion, Silnes-Lowe, Pakhomova).
7. Determine indices of periodontal tissue condition (RMA, SPI, KPI, etc.).
8. Know the methods of brushing teeth (individual hygiene, controlled brushing, professional oral hygiene).
9. Prescribe oral hygiene products depending on the dental status.
10. Determine the cariesogenic situation of the oral cavity (TER, KOSHER, etc.).
11. Teach the child hygienic care of the oral cavity using toothpicks, dental floss, stimulants, etc.
12. Remove dental deposits using dental tools, ultrasound.
13. Conduct a hygiene lesson in kindergarten and school.
14. Plan and conduct group prevention for preschool and school-aged children.
15. Make a plan and determine the effectiveness of exogenous and endogenous prevention of dental caries.
16. Treat teeth with remineralizing agents, fluoride varnish.
17. Sealing fissures of molars in children.
18. Make a plan and determine the effectiveness of periodontal disease prevention.
19. Make a plan and determine the effectiveness of comprehensive prevention of dental diseases.

2. Information volume academic discipline

Module 1. Prevention of dental diseases

Content module 1. *General issues of prevention of dental diseases . Algorithm of examination of children and index assessment of oral cavity condition.*

Specific goals:

- to know the purpose, tasks, methods of prevention of dental diseases;
- to study the anatomical and physiological features of the structure of the oral cavity in children of different ages;
- know the periods of development of temporary and permanent teeth, the stages of development of the mucous membrane of the oral cavity and the periodontium in children;
- conduct a dental examination of the child with determination of dental status, caries indices, hygienic and periodontal indices;
- examine the patient according to the WHO method and conduct an analysis of the WHO map;
- carry out an epidemiological analysis of the dental morbidity of the population.

Topic #1. General issues of prevention of dental diseases.

Anatomical and physiological features of the structure of the oral cavity and stages of development of the maxillofacial area, formation of teeth, mucous membrane, and periodontal tissues in the age aspect. Instruction on safety techniques when working in a dental office.

The concept of prevention of dental diseases. Primary, secondary and tertiary prevention. Purpose, tasks and methods of primary prevention. Instruction on safety techniques when working in a dental office.

Stages of development of the maxillofacial area in the embryonic period. Features of the structure of the oral cavity in children of different ages. Development of teeth, periodontal tissues and oral mucosa. Periods of development of teeth.

Topic #2. Methods of dental examination. Examination algorithm. Practical familiarization of students with the technique of one-on-one examination. Recording of the dental formula: clinical, anatomical. Determination of caries indices.

Algorithm of dental examination . History collection. External inspection. Detection of dysfunctions and bad habits. Methods of dental research: clinical, paraclinical and additional. Basic clinical research methods. Examination of the vestibule and the oral

cavity itself. Assessment of the condition of the bite and teeth, periodontium and oral mucosa. Recording of the clinical, anatomical dental formula depending on the age of the child. Practical familiarization of students with the technique of one-on-one examination. Filling out the outpatient medical card of a dental patient. Prevalence of caries. Intensity of caries, method of calculating caries intensity of teeth and surfaces in temporary, variable and permanent bite. Practical assimilation of the determination of caries indices in children of the same age in kindergarten and school.

Topic #3. Indices of oral hygiene (Green-Vermilion, Fedorova-Volodkina, Silnes-Lowe).

Groups of hygienic indices. Necessary tools and dyes. Methods of determining oral hygiene indices (Grina-Vermiliona, Fedorova-Volodkina, Silnes-Lowe). Quantitative and qualitative assessment of hygienic indices. Practical assimilation of hygiene indices by students one on one.

Topic #4. Index assessment of periodontal tissue condition (CPI , KPI, RMA, RI, Pisarev-Shiller test).

Methods of determining periodontal tissue state indexes (CPI , KPI, PMA, RI, Pisarev-Shiller test). Necessary tools and dyes. Criteria for assessing the condition of periodontal tissues using these indices. Practical assimilation of periodontal indices by students one on one.

Topic #5. Methodology of dental examination according to WHO. Dental status registration card. Card filling.

Purpose, categories , age groups and the volume of the sample of the epidemiological survey according to the WHO methodology . Characteristics of the previous stage of the epidemiological survey. WHO map structure (1997). Methods of examination and filling in sections of the WHO map. Assessment of examination results. Completing the WHO map by students one on one.

Topic #6. Control of content module 1.

Checking students' acquisition of practical skills. Test control and oral survey.

Content module #2. Caries resistance and oral hygiene.

Specific goals:

- detection of a cariesogenic situation in the oral cavity;
- to know the structure and biological properties of enamel;
- know and be able to determine the degree of resistance of tooth enamel;
- know the protective mechanisms of the oral cavity and the participation of microflora in the occurrence of major dental diseases;
- to know the methods, means and objects of oral hygiene;
- to recommend oral hygiene methods, tools and items depending on the dental status;
- carry out controlled brushing of children's teeth and professional oral hygiene;
- conduct training in oral hygiene methods;
- know the forms and methods of sanitary and educational work and use them for hygienic education.

Topic #7. Cariesogenic situation in the oral cavity. Methods of its detection and elimination.

General and local cariogenic factors. Cariesogenic situation. Clinical and laboratory methods of detecting caries in the oral cavity. Identification of some cariogenic factors in each other (hygienic index, caries activity, pH of oral fluid).

Topic #8. Structure and biological properties of enamel and dentin. Maturation of enamel after tooth eruption.

Structure and chemical composition of enamel and dentin. Primary, secondary and tertiary dentin. Biological properties of enamel and dentin. Formation and mineralization of enamel. Differences between enamel and dentin in temporary and permanent teeth. Maturation of enamel after tooth eruption.

Topic #9. Resistance of tooth enamel to carious damage. Influence on the processes of formation, mineralization and maturation of enamel for the purpose of caries prevention. Biological properties of tooth pulp. Modern ideas about metabolic processes in tooth enamel and pulp.

Caries resistance and caries susceptibility. Tests to determine the resistance of tooth enamel. Influence on the processes of formation, mineralization and maturation of enamel for the purpose of caries prevention. Functions of the tooth pulp. Modern ideas

about metabolic processes in tooth enamel and pulp. Determination of enamel resistance test.

Topic #10. Composition and properties of oral fluid: its role in the processes of enamel maturation, demineralization, remineralization. Protective mechanisms of the oral cavity.

Composition of oral fluid and its functions. The role of oral fluid in the processes of enamel maturation, demineralization and remineralization. Methods of clinical and laboratory research of oral fluid. Nonspecific and specific protective mechanisms of the oral cavity. Features of the action of each of the protective mechanisms of the oral cavity. Carrying out the KOSHER test.

Topic #11. Microflora of the oral cavity, its participation in the development of the main dental diseases. Surface formations on the teeth. Classification of dental layers.

Permanent and resident microflora of the oral cavity. Microorganisms that cause the development of the main dental diseases. Methods of determining the number of Streptococcus mutans and lactobacilli in oral fluid. Surface formations on the teeth. Classification of dental layers.

Topic #12. Oral hygiene products, their composition and properties, indications for use depending on dental status.

Classification of oral hygiene products. Composition and properties, mechanism of impact on oral tissues of tooth powders, pastes, rinses and chewing gums. Classification of toothpastes. Indications for the use of pastes according to the RDA index , depending on the age and condition of the hard tissues of the teeth, periodontium and mucous membrane of the oral cavity . Indications for use and choice of oral hygiene products by students for each other depending on the dental status.

Topic #13. Oral hygiene items, indications for use depending on dental status.

Classification and purpose of oral hygiene items. Toothbrushes: structure, classification and rules of use. Interdental oral hygiene products. Indications for the use of oral hygiene items depending on the dental status. Choice of oral hygiene subjects by students for each other depending on the dental status.

Topic #14. Methods of hygienic care of the oral cavity. Personal hygiene. Learning how to brush your teeth. Controlled tooth brushing.

Methods of hygienic care of the oral cavity. Methods of brushing teeth: standard, brush rotation, Leonard, Reite, Fones, Stillman, Smith-Bell, Bass, Charter. The choice of tooth brushing method depends on the dental status. Controlled tooth brushing. Learning to brush teeth on models.

Topic #15. Professional oral hygiene: methods and equipment.

Methods of professional oral hygiene. Tools for professional oral hygiene. Mastering the methods of professional oral hygiene using hand tools and a pneumatic scaler.

Topic #16 . Hygienic dental education and upbringing of children in organized children's groups. Conducting a health lesson.

Teaching methods of oral hygiene. Principles of hygienic dental education and upbringing of children in organized children's groups. Step-by-step hygienic education and upbringing in organized children's groups: contingent, ideas and emerging skills. Conducting a health lesson in an organized children's group.

Topic #17. Sanitary education is a component of the primary prevention of dental diseases. Organization of dental sanitary education, its forms, methods, means.

Areas and participants of sanitary and educational work. Forms, methods and means of sanitary education. Stages of sanitary and educational work. Creation of sanitary bulletins.

Topic #18. Control of content module 2.

Checking students' acquisition of practical skills. Test control and oral survey.

Content module #3. Prevention of caries and periodontal diseases. Comprehensive system of prevention of dental diseases.

Specific goals:

- plan and recommend means of endogenous prevention of dental caries for children of different ages;
- plan and recommend means of exogenous dental caries prevention for children of different ages;
- carry out remineralizing therapy;

- carry out non-invasive and invasive sealing of fissures;
- evaluate the effectiveness of caries prevention;
- know the main etiopathogenetic factors of periodontal diseases in children of different ages and ways of their prevention;
- plan preventive measures for periodontal diseases in children of different ages;
- prescribe means for hygienic care of the oral cavity in case of periodontal tissue diseases.
- form dispensary groups of children;
- to know the organizational forms, stages of dispensation, the frequency of preventive examinations;
- to know the components and organizational principles of a comprehensive system of prevention of dental diseases in children.
- evaluate the effectiveness of the comprehensive prevention system.

Topic #19. Endogenous prevention of dental caries in children. Interaction with a pediatrician. Planning, implementation methods.

Types and methods of endogenous prevention of dental caries in children. Antenatal prevention of dental caries in children. Planning the prevention of dental caries in children depending on the expressiveness of factors of the cariogenic situation. Interaction with a pediatrician.

Topic #20. Systemic introduction of fluorides. The mechanism of caries-prophylactic action of fluorides. Appointment of macro- and microelements, vitamins depending on the age of the child.

Ways of entry and saturation of fluorine in the human body. Normal and optimal fluoride content in drinking water. The mechanism of caries-prophylactic action of fluorides. Schemes for the appointment of oral fluoride preparations depending on age and the content of fluoride in drinking water. Writing prescriptions.

The need for macro- and microelements, vitamins in children of different ages. The influence of macro- and microelements, vitamins on the formation and mineralization of hard tooth tissues. Rational nutrition in the prevention of dental caries. Modern medicines

containing macro- and microelements, vitamins and their purpose for children of different ages. Writing prescriptions. Planning of measures of endogenous prevention for patients based on the data of ambulatory charts of the dental patient.

Topic #21. Exogenous prevention of dental caries in the age aspect. Characteristics of means for local caries prevention, purpose and methods of their use.

Types of exogenous prevention of dental caries in children of different ages. Means for local caries prevention, purpose, methods of application. Writing prescriptions. Planning of exogenous preventive measures for patients based on the data of the outpatient charts of the dental patient.

Topic #22. Practical assimilation of various methods of exogenous caries prevention in children.

Learn the techniques of conducting remineralizing therapy according to Borovsky-Leus, electrophoresis of remineralizing drugs on hard dental tissues, the technique of covering teeth with remineralizing varnishes and gels one on top of the other.

Topic #23. Sealing of dental fissures. Methods, indications for use. Means for sealing dental fissures and methods of their use.

Types of sealing. Types of tooth fissures. Indications for carrying out various types of sealing. Classification of means for sealing fissures of teeth. Requirements for means for sealing fissures of teeth. Sealants. Methods of sealing fissures using various means. Effectiveness of fissure sealing.

Topic #24. Practical assimilation of the technique of sealing dental fissures.

Carrying out non-invasive and invasive techniques for sealing fissures in children under the supervision of a teacher.

Topic #25. Prevention of periodontal diseases in children. The main etiopathogenetic factors of periodontal diseases. Planning, implementation methods.

The main etiopathogenetic factors of periodontal diseases in children of different ages and ways of their prevention. Methods of prevention of periodontal diseases. Means used for the prevention of periodontal diseases. Planning measures for the prevention of periodontal diseases for patients based on the data of outpatient charts of the dental patient.

Topic #26. Oral hygiene as a basis for the prevention of periodontal diseases. Appointment of means for hygienic care of the oral cavity depending on the state of the periodontium.

The use of oral hygiene methods for the prevention of periodontal diseases. Means and items for hygienic care of the oral cavity in case of periodontal tissue diseases. The choice of oral hygiene products and items for each other depending on the condition of the periodontal tissues.

Topic #27. Comprehensive system of prevention of dental diseases in children. Main stages of implementation and organizational principles. Preparation, compilation of the program. Criteria for evaluating the effectiveness of the comprehensive prevention system program. Monitoring the effectiveness of caries prevention.

Components and the main contingent of the comprehensive system of prevention of dental diseases in children. The main stages of implementation and organizational principles of a comprehensive system of prevention of dental diseases. Preparation, compilation of the program. Evaluation of the organizational, medical and economic efficiency of the complex system prevention Practical evaluation of the medical effectiveness of the complex system preventive measures carried out in the region, according to the data of dental caries indicators and periodontal indices. Criteria for evaluating the effectiveness of caries prevention. Analysis of the effectiveness of the caries prevention method in children of the dispensary group based on the data of the dental patient's outpatient charts.

Topic #28. Examination of children at the dentist as the main method of implementing primary prevention. Principles, organizational forms, stages of dispensation. Methods of formation of dental dispensary groups.

Principles, organizational forms, stages of dispensation. Methods of formation of dental dispensary groups. Multiplicity of preventive examinations. Acquaintance with the documentation of dispensation.

Topic #29. Control of content module 3.

Checking students' acquisition of practical skills. Test control and oral survey.

Topic #30. Control of the final module 1.

3. The structure of the academic discipline

Name of content modules and topics	Lectur es	Practica l training	Independent work	
			S.S.	IND.
Module 1. Prevention of dental diseases				
Content module 1. General issues of prevention of dental diseases . Algorithm of examination of children and index assessment of oral cavity condition.				
1 Control of the initial level of knowledge. Methodology of dental examination. Practical mastering of dental examination methods and identification of risk factors for dental diseases.	1	3		
2 Index assessment of the hygienic state of the oral cavity. Determination of oral hygiene indices (Green-Vermilion, Fedorova-Volodkina, Silness-Lowe).	1	3		
3 Index evaluation of the state of hard tissues of teeth. Practical assimilation of KPV indices, KPV+kp, kp of teeth, kp of surfaces.	1	3		
4 Index assessment of periodontal tissue condition. Practical assimilation of periodontal indices (SRI, RMA, SB I, loss of attachment).	1	3		
5 Organization and methods of conducting hygienic education and upbringing in organized children's groups among children of different ages. The standard method of brushing teeth, the method of	1	3		

instruction and control over the quality of brushing.				
6 Practical mastery of the method of hygienic teaching and upbringing in the conditions of a children's preschool.	0.5	3		
Content module #2. Caries resistance and oral hygiene.				
7 Cariesogenic situation in the oral cavity. Characteristics of the main risk factors for the development of caries. Practical assimilation of methods of determining the main risk factors for the development of caries.	0.5	3		
8 Exam		3		
Total for content modules 1 and 2	6	24	30	
Content module 3. Prevention of caries and periodontal diseases. Comprehensive prevention system dental diseases				
1 Oral hygiene products, their composition and properties, indications for use. Methods of hygienic care of the oral cavity.		3	2	
2 Selection of oral hygiene products depending on age and dental status.		3	2	
3 Endogenous prevention of dental caries in children with the use of fluorine, calcium, vitamins and trace elements. Planning, implementation methods, efficiency control.	0.5	3	2	
4 Planning, implementation methods, control of the effectiveness of exogenous prevention of dental caries in children with the use of fluoride and calcium preparations. Means. The mechanism of their action.	0.5	3	2	

5 Planning, methods of implementation, control of the effectiveness of exogenous prevention of dental caries in children with the use of calcium preparations. Means. The mechanism of their action.	0.5	3	2	
6 Sealing of fissures. Means. Execution method, efficiency control.		3	2	
7 Individual prevention of periodontal diseases, professional teeth cleaning. Scaling		3		
8 Individual prevention of periodontal diseases, professional teeth cleaning. Powder-jet methods.		3	2	
9 Individual prevention of periodontal diseases, Practical assimilation of methods and means of individual prevention of periodontal diseases.	0.5	3		
10 Individual assessment of risk factors for major dental diseases and planning of preventive measures.		3	2	
11 Practical mastery of the method of planning and carrying out individual prevention of dental caries and gingivitis in children.		3	2	
12 Exam.		3	2	
Module 3 together	4	36	20	
Total hours: 120	10	60	50	

Note: * - hours for independent study of topics that are not part of the classroom lesson plan.

**Thematic plan of lectures
from the discipline of prevention of dental diseases.
For students of the 3rd year of the 5th semester
IAEM 2022-23**

No.	Topics names	Number hours
1	Modern principles of organization and methods of medical and preventive care for children. The historical role of domestic scientists and organizers. Epidemiology of the main dental diseases in children. Epidemiological research in dentistry, methods and accounting forms.	2
2	Development of temporary and permanent teeth. Factors affecting the formation and mineralization of hard tissues. Cariogenic factors in the oral cavity. Methods of their detection and elimination. The role of oral microflora and protective factors in the development of caries and periodontal diseases.	2
3	Tooth homeostasis after eruption. Resistance of tooth enamel to carious damage. Influence on the processes of formation, mineralization and maturation of enamel for the purpose of caries prevention. Prevention of periodontal diseases in children.	2
	In total	6

**THEMATIC PLAN OF PRACTICAL LESSONS
On the prevention of dental diseases
for students of the 3rd year of the 5th semester
PVZ MAEM 20 20 -21 n.y.**

No	The name of the topic	Number hours
1	Control of the initial level of knowledge. Methodology of dental examination. Practical mastering of dental	3

	examination methods and identification of risk factors for dental diseases.	
2	Index evaluation of the hygienic state of the oral cavity. Determination of oral hygiene indices (Green-Vermilion, Fedorova-Volodkina, Silness-Lowe).	3
3	Index assessment of the condition of hard tissues of teeth. Practical assimilation of KPV indices, KPV+kp, kp of teeth, kp of surfaces.	3
4	Index assessment of periodontal tissue condition. Practical assimilation of periodontal indices (SRI, RMA, SB I, loss of attachment).	3
5	Organization and methods of hygienic education and upbringing in organized children's groups among children of different ages. The standard method of brushing teeth, the method of instruction and control over the quality of brushing.	3
6	Practical mastery of the method of hygienic education and upbringing in the conditions of a children's preschool.	3
7	Cariesogenic situation in the oral cavity. Characteristics of the main risk factors for the development of caries. Practical assimilation of methods of determining the main risk factors for the development of caries.	3
8	Exam	3
	In total	24

Thematic plan of lectures
from the discipline of prevention of dental diseases.
For students of the 3rd year of the 6th semester
IAEM 2022-23 n.r.

No.	Topic name	Number hours

1	Endogenous prevention of dental caries in children. Indications, means, mechanism of action, method of application Exogenous prevention of dental caries in children. Indications, means, mechanism of action. Methods of application . Sealing of dental fissures in children.	2
2	Sanitary education and hygienic training - preparation of primary prevention of dental diseases.	2
	In total	4

THEMATIC PLAN OF PRACTICAL LESSONS
On the prevention of dental diseases
for students of the 3rd year of the 6th semester
IAEM 2022 -23

<i>No</i>	<i>Topic name</i>	<i>Number of hours</i>
1.	Oral hygiene products, their composition and properties, indications for use. Methods of hygienic care of the oral cavity.	3
2.	Selection of oral hygiene products depending on age and dental status.	3
3.	Endogenous prevention of dental caries in children with the use of fluorine, calcium, vitamins and trace elements. Planning, implementation methods, efficiency control.	3.
4.	Planning, implementation methods, control of the effectiveness of exogenous prevention of dental caries in children with the use of fluoride and calcium preparations. Means. The mechanism of their action.	3
5.	Planning, methods of implementation, control of the effectiveness of exogenous prevention of dental caries in children with the use of calcium preparations. Means. The mechanism of their action.	3
6.	Sealing of fissures. Means. Execution method, efficiency control.	3

7.	Individual prevention of periodontal diseases, professional teeth cleaning. Scaling	3
8.	Individual prevention of periodontal diseases, professional teeth cleaning. Powder-jet methods.	3
9.	Individual prevention of periodontal diseases, Practical assimilation of methods and means of individual prevention of periodontal diseases.	3
10.	Individual assessment of risk factors for major dental diseases and planning of preventive measures.	3
11.	Practical mastery of the planning and implementation of individual prevention of dental caries and gingivitis in children.	3
12.	Exam	3
	In total	36 hours

Thematic plan of students' independent out-of-classroom work

from the discipline of prevention of dental diseases

For students of the dentistry department of IAEM 2022 -23

3rd year, 5th semester

No	Subject of classes	Number hours
1.	Preparation for practical, seminar classes (theoretical, development of practical skills, abilities)	10
2	* Independent study of topics that are not part of the classroom lesson plan	
	1. Oral hygiene index by E.M. Kuzmina, modified Rust index about gi.	1
	Modern means and devices for identifying risk factors for dental diseases.	1

3.	<p>* Individual research independent work, topics: 4. Prevalence and intensity of carious lesions in a group of children of an educational institution.</p> <p>Study of the type of microcrystallization of oral fluid in students of the group.</p> <p>Prevalence and intensity of periodontal diseases taking into account the age of the child in preschool educational institutions and schools.</p> <p>To conduct an examination of a group of children of an educational institution using the WHO method, filling out a WHO card. To conduct an examination of the state of oral hygiene in a group of children of an educational institution according to the WHO method with filling out the WHO card. To conduct an examination of the state of oral hygiene in a group of children of an educational</p>	10
4.	Preparation for the exam	8
In total		30

Thematic plan of students' independent out-of-classroom work

from the discipline of prevention of dental diseases

For students of the dentistry department of IAEM 2022 - 23

3rd year, 6th semester

No	Subject of classes	Number hours
1.	Preparation for practical, seminar classes (theoretical, development of practical skills, abilities). subject numbers:	3
2	* Independent study of topics that are not part of the classroom lesson plan, topics: 1-4	3
	.Modern devices for professional oral hygiene <i>PROPHY – MAX</i> , <i>AIR - MAX VOOSSTER</i> , Mini-Piezon, Cavitron , AerFlow C1 and others.	1
	Modern materials for sealing fissures of permanent teeth in children (sealants, glass ionomers, compomers, liquid composites, ormokers).	1

	New ways and methods of exogenous prevention of dental caries.	1
3.	* Individual research independent work, topics: 1. Effectiveness of sealing dental fissures with the help of various sealants. 2. Determination of the effectiveness of preventive measures after a course of exogenous and endogenous prophylaxis with calcium and fluoride preparations. 3. Development of dental disease prevention schemes depending on the fluoride content in drinking water.	10
4.	Preparation for the Exam	4
Total hours 30+20		20

Note: * - independent processing of topics by students is carried out by writing abstracts and submitting them to the teacher for review

9. Individual tasks

1. Prepare a review of scientific literature on the topics being studied.
2. Conduct scientific research on the topic:
 - Prevalence and intensity of carious lesions in a group of children of an educational institution.
 - Study of the type of microcrystallization of oral fluid in students of the group.
 - Prevalence and intensity of periodontal diseases taking into account the age of the child in preschool educational institutions and schools.
 - To conduct an examination of a group of children of an educational institution according to the WHO method with filling out a WHO card.
 - To conduct an examination of the state of oral hygiene in a group of children of an educational institution;
 - Effectiveness of sealing dental fissures with the help of various sealants.

- Determination of the effectiveness of preventive measures after a course of exogenous and endogenous prophylaxis with calcium and fluoride preparations.
- Development of schemes for the prevention of dental diseases depending on the fluoride content in drinking water.

3. Write an essay on the topic:

- Cariesogenic situation and ways of its detection.
- Means of individual oral hygiene and their selection according to the age of the child and the condition of the oral cavity.
- Subjects of individual oral hygiene and their selection according to the age of the child and the condition of the oral cavity.
- Professional oral hygiene in the prevention of oral diseases.
- Keep your smile!
- Use of personal hygiene products according to the condition of the oral cavity and the age of the child.
- Individual prevention of periodontal diseases in children.
- Antenatal prevention of caries in children.
- New technologies in the prevention of dental diseases.
- Sealing fissures is the most effective method of caries prevention.
- Fluoride prevention in modern conditions.
- Endogenous prevention of dental caries in children of different ages.
- The use of sealants is the most effective method of caries prevention.

10. Teaching methods

- **Explanatory-illustrative** or **informative-receptive** , which involves the presentation of ready-made information by the teacher and its assimilation by students;
- **reproductive** , which is based on the performance of various tasks according to the model;
- **method of problem presentation**, which is because the teacher poses a problem and solves it himself, demonstrating the contradictions that characterize the learning process, while the students' task is to control the sequence of presentation of the material, the significance of the evidence, predicting the teacher's next steps; this

teaching method is implemented by training students in problem situations with the aim of successful preliminary preparation for future work in the real conditions of practical medical institutions;

- **partially search** or **heuristic** , aimed at mastering individual elements of search activity, for example: the teacher formulates a problem, students - a hypothesis;
- **research** , the essence of which is the teacher's organization of creative research activities of students by posing new problems and problematic tasks.

Teaching methods in higher education can also be divided into:

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

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

Achieving the partial goals of one or another method occurs through the use of techniques for learning specific operations, which in different combinations and in different sequences form different methods, or can be combined in different ways, forming variants of the same method.

11. Control methods

Methods of monitoring the student's current educational activity.

Theoretical knowledge:

1. Individual oral survey of theoretical material or theoretical interview.
2. Programmable control.
3. Written theoretical control.

Practical skills and abilities:

1. Individual control of practical skills and their results on a phantom.

Methods of monitoring the assimilation of content modules.

Theoretical knowledge:

1. Individual oral survey.
2. Written solution of test tasks or computer test control.
3. Written theoretical control.

Practical skills and abilities:

1. Individual control of practical skills and their results on a phantom.

Methods of final modular control (PMK).

1. Programmable control.
2. Individual oral survey.
3. Individual control of practical skills and their results on a phantom.

Theoretical knowledge:

1. Theoretical interview.
2. Written solution of test tasks of the 2nd level or computer test control.
3. Written theoretical control.

Practical skills and abilities:

1. Individual control of practical skills and their results on a phantom.

12. DISTRIBUTION OF POINTS RECEIVED BY STUDENTS

The form of control and evaluation systems is carried out in accordance with the requirements and instructions adopted by the decision of the meeting of the Department of Stomatology of the "INTERNATIONAL ACADEMY OF ECOLOGY AND MEDICINE" PVNZ by protocol No. 1 dated August 30, 2017.

The grade for the module is defined as the sum of the grades of current success (according to the scale of conversion of traditional grades into rating points), adopted by the decision of the Department of Dentistry of the International Academy of Ecology and Medicine, Protocol No. 1 dated August 30, 2017, and the grade for the final module control.

The maximum number of points that a student can score when studying each module is 200 points, including 120 points for the current educational activity, 80 points for the results of the final module control.

Current control of students' knowledge is carried out at each practical session in accordance with the specific goals of the topic. The following control methods are used to objectively diagnose the level of students' training: computer tests; solving situational problems; procedurally structured control of practical skills and abilities.

Evaluation of current educational activities:

When mastering each topic of the module for the current educational activity, students are assigned grades on a 4-point traditional scale. At the end of the module, the arithmetic average of grades is calculated. The student's current performance is converted into points by converting the average arithmetic grade into rating points according to the

single universal scale of converting traditional grades from the 5-point system into rating points, adopted by the decision of the Department of Dentistry of the International Academy of Ecology and Medicine, Protocol No. 1 dated 30.08.2017 p.

The minimum grade for admission to the final module control is an average success rate of 3.00, which is equal to 72 rating points. The maximum GPA a student can receive is 5.00, which is equal to 120 rating points.

STUDENT EVALUATION CRITERIA

The grade **"EXCELLENT"** deserves a student who has comprehensive and in-depth knowledge of the program material, knows how to correctly perform the tasks provided for by the program, has mastered the basic and is familiar with additional literature; who closely connected theoretical knowledge with practice.

The grade **"GOOD"** deserves a student who has full knowledge of the program material, successfully completes the tasks provided by the program, has mastered the basic literature recommended by the program, correctly uses theoretical knowledge when solving practical tasks, possesses the necessary skills and techniques for their implementation.

"SATISFACTORY" rating a student who has knowledge of the main program material, but has not mastered its details, admits inaccuracies, not quite correct formulations, violates the sequence in the presentation of the program material and experiences difficulties in performing practical skills deserves a credit.

"UNSATISFACTORY" rating a deserving student who has not fully mastered the basic program material, makes fundamental mistakes in performing the tasks provided for by the program, is uncertain, performs practical skills with great difficulty.

Evaluation of independent work:

Assessment of independent work of students, which is provided for in the topic along with classroom work, is carried out during the current control of the topic in the corresponding classroom lesson.

The evaluation of topics that are assigned only to independent work and are not included in the topics of classroom training sessions is controlled by the final module control.

Assessment of individual student tasks

Points for individual tasks are awarded to the student only if they are successfully completed and defended.

12 points (which can be added to the grade in the discipline) are added for prize places in intercollegiate Olympiads in the discipline and intercollegiate and international scientific student conferences with the publication of work.

11-10 points are added for prize places at intra-university Olympiads and student scientific conferences with the publication of work.

10 points are added for participation (if the student participated, but did not receive a prize) in interuniversity Olympiads in the discipline and interuniversity and international scientific student conferences with the publication of work.

8 points are added for participation (if the student participated, but did not receive a prize) in intra-university Olympiads and student scientific conferences with the publication of work.

6 points are added for the production of mock-ups, models, diagrams, tables, stands, video films at the department - taking into account the importance of the work performed.

4 points are added for an abstract report on modern methods in therapeutic dentistry.

Final modular control:

The final module control is carried out upon completion of the study of all topics of the module (content modules) at the last control session of the module.

Students who have completed all types of work provided for in the curriculum and who have studied the module and scored at least the minimum number of points are admitted to the final examination.

The form of the final modular control is standardized and includes the control of theoretical and practical training.

The maximum number of points that a student can score when taking the PMK is 80 points.

The final module test is considered passed if the student scored at least **50** points.

The final modular control in the discipline "Prevention of dental diseases" consists of a programmed control that involves solving test tasks, an individual oral survey and individual control of practical skills and their results on a phantom.

Evaluation criteria of test control :

61-70% (31-35 correct answers) – 30 points

71-80% (36-40 correct answers) – 35 points

81% or more (41 or more correct answers) – 40 points

Students who did not answer 61% (55) of the test questions correctly are not allowed to take the PMK. The minimum number of points that a student can receive for correctly solving 61% of test tasks is 30 points.

An individual oral survey is conducted in accordance with the list of theoretical questions for the PMK.

Individual control of practical skills and their results consists of a demonstration by the student on a phantom of one practical skill from the list of practical tasks and works for

the PMK in the discipline "Prevention of dental diseases".

Assessment of discipline:

According to the decision of the Scientific Council of the "International Academy of Ecology and Medicine" from 30.08.2017, the discipline "Prevention of dental diseases" in the 3rd year is ending. offset

The teacher calculates the student's current performance for the module and calculates the average score, then converts it into points according to the "Scale of conversion of traditional grades into rating points (200 points)", adopted by the decision of the Department of Dentistry of the International Academy of Ecology and Medicine, Protocol No. 1 dated 11.09 . 2015. If the sum of points is 122-200 points, the student receives "credited".

The current academic performance is calculated for the entire course of study of the discipline, the average score is converted into points according to the "Scale of conversion of traditional grades into rating points (120 points)"

The grade for the exam corresponds to the scale:

grade "5" - 80-71 points

grade "4" - 70-61 points

grade "3" - 60-50 points

The grade for the discipline consists of the sum of the points for the current success rate and the difference score. The obtained points correspond to the fixed rating scale according to the "Instructions for evaluating exams and differential credits", adopted by the decision of the Department of Dentistry of the International Academy of Ecology and Medicine, Protocol No. 1 dated August 30, 2017.

Rating scale: national and ECTS

The sum of points for all types of educational activities	Evaluation on a national scale	
	for an exam, course project (work), practice	for credit
180-200 A	perfectly	
170-179 B	fine	

150-169 C		counted
130 -149 D	satisfactorily	
120 -129 E		
FX	unsatisfactory with the possibility of reassembly	not counted with the possibility of retaking
F	unsatisfactory with mandatory repeated study of the discipline	not enrolled with mandatory repeated study of the discipline

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

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

The average score of the current academic performance on a traditional 4-point scale	Points for current performance after GPA conversion
2.00	0
2.05	49
2.10	50
2.15	52
2.20	53
2.25	54
2.30	55
2.35	56
2.40	58
2.45	59

2.50	60
2.55	61
2.60	62
2.65	64
2.70	65
2.75	66
2.80	67
2.85	69
2.90	70
2.95	71
3.00	72
3.05	73
3.10	74
3.15	75
3.20	77
3.25	78
3.30	79
3.35	80
3.40	82
3.45	83
3.50	84
3.55	85
3.60	86

3.65	87
3.70	89
3.75	90
3.80	92
3.85	93
3.90	94
3.95	95
4.00	96
4.05	97
4.10	98
4.15	99
4.20	101
4.25	102
4.30	103
4.35	104
4.40	106
4.45	107
4.50	108
4.55	109
4.60	110
4.65	111
4.70	113
4.75	114

4.80	115
4.85	116
4.90	118
4.95	119
5.00	120

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

13. Methodological support

1. Methodical guidelines for classroom work of students.
2. Methodical guidelines for extracurricular independent work of students.
3. Professional algorithms for mastering professional skills and abilities (included in methodological instructions for students).
4. Test tasks for control of content modules.
5. Test tasks for the final control of the module.
6. List of theoretical questions.
7. List of practical skills.

14. Recommended literature

The main one

1. Therapeutic dentistry of children's age Volume 1: tutorial/ L.O. Khomenko, Y.B. Tchaikovsky, N.I. Smolyar [and others]; under the editorship Prof. L.O. Khomenko - K.: Book Plus, 2014. - 432 p.
2. Therapeutic stomatology of childhood Volume 2: tutorial/ L.O. Khomenko, Y.B. Tchaikovsky, O.V. Savychuk [and others]; under the editorship Prof. L.O. Khomenko - K.: Book Plus, 2016. - 328 p.
3. Prevention of dental diseases: tutorial. for students higher med. education closing / L.F. Kaskova, L.I. Amosova, O.O. Karpenko [and others]; under the editorship Prof. L.F. Kaskova – Kh.: Fakt, 2011. – 392 p.

Auxiliary

4. Therapeutic dentistry for children edited by prof. L.A. Khomenko - Kyiv: Book Plus,

2007. - 815 p.

5. Production practice for the prevention of dental diseases: assistant professor / L.F. Kaskova, S.Ch. Novikova, L.I. Amosova, O.A. Karpenko, N.M. Anoprieva - Poltava, 2016. - 218 p.

6. Modern means of exogenous prevention of diseases of the oral cavity / L.A. Khomenko, N.V. Bydenko, E.I. Ostapko, V.I. Shmatko - Kyiv: Book plus, 2001. - 208p.

7. Kaskova L.F. Prevention of dental diseases (collection of test tasks for differentiated test control of knowledge of 3rd year students)/L.F. Kaskova, S.Ch. Novikova, O.E. Abramov – Poltava, 2011. – 107 p.

8. Kaskova L. _ F. _ And prevention of dental diseases (workbook of tests for 3 courses students) / Kaskova L. _ F. , Novikova S. _ C. , Anoprieva N. _ M. _ – Poltava, 2016. – 125 p.

15. Information resources

1. Information resources of the university library.

2. Electronic information resources of university libraries

3. - Electronic catalog of the library.

- Information and reference sources: encyclopedias, directories, dictionaries

- Educational electronic publications and resources: manuals containing systematized material within the curriculum of the academic discipline.

4. Information resources on the Internet:

- Internet catalogs and link collections.

- Medical web servers and web pages:

MedWedi . ru - a portal of free medical literature

Dec. _ academic . ru - dictionaries and encyclopedias

Mediclab (medical information portal)

[http : www. Swissimplant.ru / glossary.php](http://www.Swissimplant.ru/glossary.php)

[www. wikident.ru / index.php](http://www.wikident.ru/index.php)

[www. eurolab.ua / encyclopedia](http://www.eurolab.ua/encyclopedia)

MedUniver . com

Medical . diss . com

- Databases.
- Archives of electronic texts and virtual libraries.
- Bibliographic guides.
- Medical organizations (associations, scientific societies).
- Research centers and institutes.
- Medical education.
- Medical facilities.
- News.
- Useful links.