

Ukraine Ministry of Health
Kharkiv National Medical University
Faculty of Dentistry
Department of Pediatric Dentistry and Implantology
Educational Program for Training Specialists of the Second (Master's)
Level, Higher Education Training 22 "Healthcare"
in Specialty 221 "Dentistry"
SYLLABUS OF THE COURSE
ORTHODONTICS

5th year

Compulsory or elective educational component _____ compulsory _____

Mode of the educational component _____ off-line _____
(off-line; mixed; on-line)

Field of knowledge _____ 22 "Healthcare" _____
(code and name of the field of knowledge)

Specialty _____ 221 «Dentistry» _____
(code and name of the specialty)

Educational and professional program _____ «Dentistry» _____

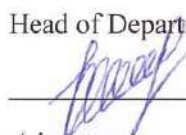
Of the second (master's) level of higher education

Course _____ fifth _____

The syllabus of the discipline was approved at the meeting of the Department of Pediatric Dentistry and Implantology

Protocol from "30" August 2021 № 1

Head of Department

 _____ prof. Nazaryan RS

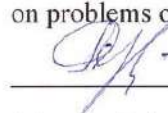
(signature) (surname and initials)

"30" August 2021

Approved by the methodical commission of KhNMU on problems of professional training dental profile

Protocol from "02" September 2021 year №4

Chairman of the methodical commission of KhNMU on problems of professional training dental profile

 _____ prof. Ruzin GP

(signature) (surname and initials)

"02" September 2021

Kharkiv – 2021.

Implementator: Nazaryan Rozana, Kryvenko Liudmyla, Khmyz Tatiana, Lepilina Kseniia.

Teachers: Nazaryan R., Kryvenko L., Khmyz T., Lepilina K.

Teacher information:

Nazaryan R. - Doctor of Medical Sciences, Professor, Head of the Department of Pediatric Dentistry and Implantology, specialization: Pediatric Dentistry, Surgical Dentistry, Therapeutic Dentistry, Orthodontics.

Kryvenko L. - Doctor of Medical Sciences, Professor, Professor of the Department of Pediatric Dentistry and Implantology, specialization: Pediatric Dentistry, Orthodontics.

Khmyz T. - Candidate of Medical Sciences (PhD), Associate Professor, Associate Professor of the Department of Pediatric Dentistry and Implantology, specialization: Pediatric Dentistry, Orthodontics.

Lepilina K. - Assistant of the Department of Pediatric Dentistry and Implantology, specialization: Pediatric Dentistry, Orthodontics.

Contact e-mail of the department: kaf.st.dytiachoist@knmu.edu.ua

Face-to-face consultations: schedule and venue according to the schedule of the department.

On-line consultations: schedule and venue by prior arrangement with the teacher.

Location: classes are in the USC KhNMU

Information about discipline

1. The discipline's description

"Orthodontics"

for English-speaking 5th year students of the dental faculty

Total hours: 90 / 3.0 credits

(lectures - 10 hours, practical classes - 60 hours, ISW - 20 hours)

Name of indicators	Field of knowledge, direction of training, educational and qualification level	Characteristics of the discipline	
		full-time education	evening form of study
Number of credits – 3.0	Training direction <u>22 "Healthcare"</u> (code and name)	Normative	
Total number of hours - 90	Specialty: <u>221 "Dentistry" masters</u> (code and name)	Year of study:	
		5-th	-
		Semester	
		9-th, 10-th	-
Hours for full-time education (or evening) form of study: classrooms - 70 independent student work - 20	Education level: Specialist of the second (master's) level	Lectures	
		10 h.	-
		Practical, seminar	
		60 h.	-
		Laboratory	
		-	-
		Independent work	
20 h.	-		
		Individual tasks: -	
		Type of control: differential credit	

Educational program of higher education of Ukraine, second (master's) level, educational qualification, assigned - master's degree, field of knowledge - 22 Healthcare, specialty 221 "Dentistry" is based on the Law of Ukraine "«Про вищу освіту» and the resolution of the Cabinet of Ministers of Ukraine 01.02.2017 № 53 «Про внесення змін до постанови Кабінету Міністрів України від 29.04.2015 р. № 266» ", in accordance with the order of the Ministry of Education and Science of Ukraine dated 01.06.2016 № 600 «Про затвердження та введення в дію Методичних рекомендацій щодо розроблення стандартів вищої освіти»."

The program of the course determines the prerequisites for access to education, orientation and main focus of the program, the amount of ECTS credits required for a master's

degree, a list of general and special (professional) competencies, normative and variable content of training, formulated in terms of learning outcomes and control requirements quality of higher education.

The department accepts qualified students of any race, national or ethnic origin, sex, age, people with special needs, any religion, sexual orientation, gender, veteran status or marital status for all rights, privileges, programs and activities, provided to university students.

Moodle discipline page: <http://31.128.79.157:8083/course/index.php?categoryid=176>

1. The purpose and objectives of the discipline

The purpose of the study of orthodontics is determined by the ultimate goals set on the basis of the General Professional Training of training a doctor in the specialty in accordance with the block of its units and is the basis for building the content of the discipline. The description of goals is formulated through skills in the form of target tasks (actions). On the basis of the ultimate goals for each final control or unit, specific goals are formulated in the form of certain skills (actions), target tasks that ensure the achievement of the ultimate goal of studying the discipline.

1. **Discipline status:** the main format of the discipline is mixed - a discipline that has support in the Moodle system, teaching the discipline, combines traditional forms of classroom learning with elements of distance learning, which uses available interactive information technology (ZOOM, Moodle), face-to-face and distance counseling.

2. **Methods of training.** Clinical (curation of children with anomalies of the maxillofacial area), on phantoms, digital information (presentations, video materials, methodical recommendations, lectures), scientific (participation in scientific researches in the discipline), control (tests, situational tasks, assessment of practical skills, protection a clinical case) are used for carrying out the lessons.

3. **Recommended literature:**

Basic literature:

1. Pediatric dental prosthetics/ Edited by Professor P.S.Flis – Kyiv: AUS Medicine, 2012. – p.9-21, 38-101.
2. Orthodontics/ Edited by Professor P.S.Flis – Kyiv: Medicine, 2008. – 334.
3. Orthodontics. Prevention of anomalies of dentognathic system: Textbook / R.S. Nazarayn, T.G. Khmiz, V.V. Kuzina, A.V. Samsonov. – Kharkov: KNMU, 2012. – 160 p.

Additional literature:

1. Millet D, Welbury R. Orthodontics and pediatric dentistry. – London: Harcourt Publishers Limited, 2000. – 167.
2. Mitchell L. An introduction to orthodontics. – Oxford: Oxford University Press, 1996.
3. Proffit WR. Contemporary orthodontics. - St Louis: Mosby Year Book Inc.,1999.
4. <http://www.dentalarticles.com/>
5. <http://www.pubmed.gov>
6. <http://www.youtube.com/watch?v=eUu85Hzrk1I>
7. <http://www.youtube.com/watch?v=UMwXFEEMmJE>
8. <http://www.youtube.com/watch?v=cHXAhZrNe7w>
9. http://www.youtube.com/watch?v=twdDJII9d_Y
10. http://www.youtube.com/watch?v=O_063qM-SAo&feature=related
11. <http://www.youtube.com/watch?v=nm0io5Jx9m0&feature=fvwp&NR=1>
12. <http://www.youtube.com/watch?v=IgGFF5lrF3c&feature=related>

4. Prerequisites and co-requisites of the discipline:

The discipline "Orthodontics" is related to the disciplines of anatomy and morphology, pathological anatomy and physiology, orthopedic dentistry, propaedeutics of the orthopedic dentistry, propaedeutics and prevention of dental diseases in children.

5. Learning outcomes:

As a result of studying the discipline "Orthodontics" the student must be able to:

1. Analyze the results of the examination of an orthodontic patient:

- with anomalies in the size of individual teeth;
- with anomalies in the shape of individual teeth;
- with anomalies in the number of individual teeth;
- with diastemas and tremas;
- with crowded teeth;
- with tortoanomalies;
- with vestibulo-oral position of teeth;
- with distal occlusion;
- with mesial occlusion;
- with open bite;
- with deep bite;
- with unilateral or bilateral cross-bite.

2. Identify dispensary groups of examinations of orthodontic patients and preventive measures in the group with risk factors:

- with anomalies in the size of individual teeth;
- with anomalies in the shape of individual teeth;
- with anomalies in the number of individual teeth;
- with diastemas and tremas;
- with crowded teeth;
- with tortoanomalies;
- with vestibulo-oral position of teeth;
- with distal occlusion;
- with mesial occlusion;
- with open bite;
- with deep bite;
- with unilateral or bilateral cross-bite.

3. Identify of the leading syndromes and manifestations in orthodontic practice:

- asymmetry of the face;
- pain in the bones of the face;
- shortening of the upper lip;
- shortening of the soft palate;
- snaffle (open and closed);
- deformation of the bones of the facial skeleton;
- changed tooth color;
- change the interalveolar space;
- broken teeth;
- convergence (divergence) of teeth;
- providing cleft of the maxillofacial area;
- restrictions on opening the mouth;
- violation of the proportions of the face;
- moving teeth.

4. Detect congenital and acquired defects of the maxillofacial area.
5. Demonstrate mastery of moral and deontological principles of a medical specialist and the principles of professional subordination in an orthodontic clinic.
6. To substantiate and formulate the preliminary clinical diagnosis of dental anomalies and deformations:аномалії розмірів окремих зубів;
 - with anomalies in the size of individual teeth;
 - with anomalies in the shape of individual teeth;
 - with anomalies in the number of individual teeth;
 - with diastemas and tremas;
 - with crowded teeth;
 - with tortoanomalies;
 - with vestibulo-oral position of teeth;
 - with distal occlusion;
 - with mesial occlusion;
 - with open bite;
 - with deep bite;
 - with unilateral or bilateral cross-bite.
7. To substantiate and formulate the syndrome diagnosis in orthodontic practice:при асиметрії обличчя;
 - asymmetry of the face;
 - pain in the bones of the face;
 - shortening of the upper lip;
 - shortening of the soft palate;
 - snaffle (open and closed);
 - deformation of the bones of the facial skeleton;
 - changed tooth color;
 - change the interalveolar space;
 - broken teeth;
 - convergence (divergence) of teeth;
 - providing cleft of the maxillofacial area;
 - restrictions on opening the mouth;
 - violation of the proportions of the face;
 - moving teeth.
8. Carry out differential diagnosis of diseases of the maxillofacial area:
 - with anomalies in the size of individual teeth;
 - with anomalies in the shape of individual teeth;
 - with anomalies in the number of individual teeth;
 - with diastemas and tremas;
 - with crowded teeth;
 - with tortoanomalies;
 - with vestibulo-oral position of teeth;
 - with distal occlusion;
 - with mesial occlusion;
 - with open bite;
 - with deep bite;
 - with unilateral or bilateral cross-bite.

9. Carry out differential diagnosis of somatic diseases that require special tactics of management of patients in childhood:

- heart defects;
- epilepsy;
- bronchial asthma;
- diabetes mellitus;
- HIV / AIDS;
- viral hepatitis;
- diphtheria;
- tuberculosis.

10. Conduct examinations of orthodontic patients:

- with anomalies in the size of individual teeth;
- with anomalies in the shape of individual teeth;
- with anomalies in the number of individual teeth;
- with diastemas and tremas;
- with crowded teeth;
- with tortoanomalies;
- with vestibulo-oral position of teeth;
- with distal occlusion;
- with mesial occlusion;
- with open bite;
- with deep bite;
- with unilateral or bilateral cross-bite.

11. Carry out primary and secondary prevention of the most common anomalies of the maxillofacial area::

- with anomalies in the size of individual teeth;
- with anomalies in the shape of individual teeth;
- with anomalies in the number of individual teeth;
- with diastemas and tremas;
- with crowded teeth;
- with tortoanomalies;
- with vestibulo-oral position of teeth;
- with distal occlusion;
- with mesial occlusion;
- with open bite;
- with deep bite;
- with unilateral or bilateral cross-bite.

Content of the discipline

1. Thematical plan

of lectures for 5-th year foreign students (9th semester) of dental faculty on orthodontics.
(10 hours).

№	Topic of lecture	Time
1.	Clinical and biological basis of children's dental prosthetics. The causes of defects of teeth and dentition in children and their prevention. Features of determining of chewing efficiency.	2 hours.

2.	Removable dentures designs to children (partial and full). Indications for their use, features of construction, methods of fixation, the timing of replacement, possible complications.	2 hours.
3.	Fixed constructions of the children's dental prostheses (inlays, crowns, pins and stump teeth), indications for their use.	2 hours.
4.	Fixed constructions of the children's dental prostheses (bridges). Indications for their use.	2 hours.
5.	The etiology, pathogenesis, diagnosis and treatment of congenital malformations of the face.	2 hours.
	Total	10 hours.

2. Thematical plan

of practical lessons for 5-th year foreign students (9th, 10th semester) of dental faculty on orthodontics.
(60 hours).

№	Theme of lesson	Hours
1.	Organization of orthodontic care for children and adolescents with defects of the teeth and dental arches. Clinical and biological basis of children's dental prosthetics. Constructions of dental prostheses in children to make up the anatomical shape of the teeth.	5
2.	Filling defects of dental arches in children with help of bridges.	5
3.	Filling defects of dental arches in children with removable prostheses.	5
4.	Traumatic injuries of the teeth and jaws in children.	5
5.	Changes in dentoalveolar apparatus when endocrine pathology. The etiology, pathogenesis, diagnosis and treatment of congenital malformations of the face.	4
6	The content, structure and requirements of test license examination "KROK 2" on speciality "Stomatology". Solution samples of the test tasks, the rules for filling out the form answers.	6
7	Perinatal prevention of different types of malocclusion. Characteristics of temporary, transitional and permanent dentition. Oral habits in children.	6

	Different types of malocclusion.	
8	Classification of the dentognathic anomalies and deformations. Methods of investigation of orthodontic patient.	6
9	Orthodontic appliances. Adaptation to the orthodontic appliance. Orthodontic force. Biomorphological changes of maxillofacial system under the influence of orthodontic appliances.	6
10	Peculiarities of local and general condition of an organism when different types of malocclusion. Planning of the orthodontic treatment.	6
11	Final control.	6
	Total	60 hours.

3. Independent work of students to the section
(Total hours - 40)

№	Theme of lesson	Hours	Types of control
1.	Etiology, pathogenesis, clinical features, diagnosis, and treatments of various combination of anomalies of dental system with dentition defects.	4	Current practical classes on
2.	Etiology, pathogenesis, clinical features, diagnosis and treatments asymmetric and unilateral forms lower makrognathia.	4	Current practical classes on
3.	Types of surgical training bone to orthodontic treatment. Corticotomy. Kompaktosteotomy. Osteotomy.	4	Current practical classes on
4.	Physiotherapy, as factors contributing to orthodontic treatment malformations dentition.	2	Current practical classes on
5.	Orthodontic treatment planning for contact with the patient's physician	6	Current practical classes on
	Total	20	

Discipline policy and values.

In order to successfully complete the relevant course, it is necessary to regularly attend practical classes; to have theoretical preparation for practical classes, according to the subject; not to be late and not to miss classes; perform all necessary tasks and work in each lesson; be able to work with a partner or in a group; contact the curators of the course on various issues on the subject of classes and receive it when you need it.

Students can discuss different tasks, but their performance is strictly individual. You are not allowed to write off, use any kind of software, tips, use a mobile phone, tablet or other electronic gadgets during classes for purposes other than the learning process. Students are not allowed to be late for practical classes.

Visiting patients during the curation in the hospital is possible, provided that students have the appropriate uniform, a health book with a note about the timely medical examination.

Students with special needs can meet with the teacher or warn him before the start of classes, it can be done by the head of the group on the students request. If you have any questions, please contact the teacher.

Students' participation in research and conferences on this topic is encouraged.

All students of KhNMU are protected by the Regulations on prevention and settlement of Cases Related to Sexual Harassment and Discrimination at Kharkiv National Medical University, designed to determine an effective mechanism for resolving conflict situations related to discrimination and sexual harassment. on the basis of the following regulations of Ukraine: Constitution of Ukraine; Law of Ukraine "On Education"; Law of Ukraine "On Higher Education"; Law of Ukraine "On Principles of Prevention and Counteraction of Discrimination in Ukraine"; Law of Ukraine "On Ensuring Equal Rights and Opportunities for Women and Men"; Convention for the Protection of Human Rights and Fundamental Freedoms; Convention for the Suppression of Discrimination in Education; Convention on the Elimination of All Forms of Discrimination against Women; General Recommendation № 25 to Article 4, paragraph 1, of the Convention on the Elimination of All Forms of Discrimination against Women, General Comment № 16 (2005) "Equal rights for men and women to use economic, social and cultural rights" (Article 3 of the International Covenant on Economic, Social and Cultural Rights; Committee on Economic, Social and Cultural Rights of the United Nations); education in the spirit of respect for human rights and fundamental freedoms (UNESCO), the Concept of the State Social Program for Equal Rights and Opportunities for Women and Men until 2021. Kharkiv National Medical University ensures education and work, that is free from discrimination, sexual harassment, intimidation or exploitation. The University admits the importance of confidentiality. All persons, responsible for the implementation of this policy, (staff of deans' offices, faculties, institutes and the Center of Gender Education, members of the student government and ethics committee, vice-rector for research and teaching) are confidential, regarding those, who report or accuse of discrimination. or sexual harassment (except where the law requires disclosure and / or when disclosure by the University is necessary to protect the safety of others).

KhNMU creates a space of equal opportunities, free from discrimination of any national, racial or ethnic origin, sex, age, disability, religion, sexual orientation, gender, or marital status. All rights, privileges, programs and activities, granted to students or staff of the University, apply to anybody, without exception, in case they are properly qualified. The anti-discrimination policy and the policy of counteracting sexual harassment of KhNMU are confirmed by the Codex of Corporate Ethics and the Charter of KhNMU.

The rules of behavior in University and on classes

It is important for students to follow the rules of good behavior at the university. These rules are common to all, they also apply to all teachers and staff and are not fundamentally different from the generally accepted norms.

During classes it is allowed:

- leave the audience for a short time if necessary and with the permission of the teacher;
- drink soft drinks;
- take photos of presentation slides;
- take an active part in the class

Forbidden:

- eat (except for persons whose special medical condition requires another - in this case, medical confirmation is required);
- smoking, drinking alcohol and even low-alcohol beverages or drugs;
- - use obscene language or use words that offend the honor and dignity of colleagues and faculty;
- - gambling;
- to damage the material and technical base of the university (damage inventory, equipment; furniture, walls, floors, litter the premises and territories);
- shouting, shouting or listening to loud music in classrooms and even in corridors during classes.

Plagiarism and academic integrity

The Department of Pediatric Dentistry and Implantology maintains zero tolerance for plagiarism. Students are expected to constantly raise their awareness of academic writing. The first lessons will provide information on what to consider plagiarism and how to properly conduct research and scientific research.

Occupational Safety control

At the beginning of the first lesson of the course the teacher will explain the basic principles of labor protection by conducting appropriate training. It is expected that everyone should know where the nearest evacuation exit is, where the fire extinguisher is, how to use it, and so on.

The procedure for informing about changes in the syllabus: the necessary changes in the syllabus are approved by the methodical commission of KhNMU on the problems of professional training of dental profile and published on the website of KhNMU, the website of the Department of Pediatric Dentistry and Implantology of KhNMU.

Policy of learning activities assessment

Assessment of current learning activities (CLA)

When assessing the mastery of each topic of the discipline and for the final lesson (FL), the student is graded according to the traditional 4-point system: "excellent", "good", "satisfactory" or "unsatisfactory".

The final score for the current learning activity (CLA) and the final lesson (FL) is defined as the arithmetic mean of the traditional grades for each class and FL, rounded to 2 decimal places and listed in a multi-point scale according to the standard table.

Assessment of the final lesson

The final lesson (FL) is conducted in accordance with the curriculum of the discipline and thematic plane, during classes. To help prepare for the final lesson, the following materials are available at the information stand of the department:

- basic tasks ("Krok 2. Dentistry");
- list of theoretical questions;
- list of practical skills;
- a list of drugs, for prescriptions;
- list of medical records for dentistry;
- criteria for assessing the knowledge and skills;
- schedule of students working during the semester.

- schedule of working off by students of missed classes

Differential credit

Differential credit in the discipline "Pediatric Therapeutic Dentistry" is a process during which the following are checked:

- level of theoretical knowledge;
- development of creative thinking;
- skills of independent work;
- competencies - the ability to synthesize the acquired knowledge and apply them in solving practical problems.

The following materials for preparation for the differential credit are presented at the information stand of the department

- basic tasks ("Krok 2. Dentistry");
- list of theoretical questions;
- list of practical skills;
- a list of drugs, for prescriptions;
- list of medical records for dentistry;
- criteria for assessing the knowledge and skills of students;
- schedule of consultations on the discipline during the semester.

Assessment of individual student tasks

At the meeting of the department should be approved a list of individual tasks (participation in reports at student conferences, profile competitions, preparation of analytical reviews with presentations) with the definition of the number of points for their implementation, which can be added as incentives (not more than 10).

Points for individual tasks are awarded to the student only by the commission (commission - head of the department, head teacher, group teacher), once, only under the conditions of their successful implementation and defense. The total amount of points for CLA may not exceed 120 points.

Assessment of students' independent work

Assimilation of topics that are submitted only for independent work is checked during the final lesson and differential credit.