# Odessa National Medical University Faculty of Dentistry Department of Pediatric Dentistry

## **Syllabus**

# " Endodontic technique in pediatric dentistry" (optional component)

Amount	number of ECTS credits - 3 . 5
Semester, year	6 semester
of study	
Days, time,	according to timetable
place	
Teacher (s)	Head of the department - Prof. Denga O.V., associate professors:
	Koval Yu.M., Konovalov M.F., Novikova Zh.O., Tsevuh L.B.
	assistants: Tarasenko I.Yo. Shumilina K.S., Gorokhovskii V.V.,
	Plotnikova V.G., Skorkina O.V., Yudina O.O., Gorokhivska
	Yu.V., Osadcha A.O.
Contact phone	Denga Oksana Vasylivna - Prof. Head of the Department of
	Pediatric Dentistry
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Working space	Department of Pediatric Dentistry st. Mechnikov 32 Odessa
Consultations	Every Tuesday: from 14.30 to 16.00 and on Saturdays: from 8.30
	to 13.00. within the academic semester. During the winter
	holidays daily from 8.30 to 13.00.
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#### Communication

Communication with students is carried out according to the schedule in the classrooms and lecture halls. In the case of distance learning, communication can take place online on the Microsoft Teams platform according to timetable.

#### **Course abstract**

The subject of the discipline "Endodontic technique in pediatric dentistry" is to deepen students' knowledge of modern techniques of endodontic interventions, materials and tools used in the treatment of caries complications in temporary and permanent teeth in children of different ages

**Prerequisites of the course**: - "Propaedeutics of pediatric therapeutic dentistry", "Bioorganic and biological chemistry", "Physiology" and others.

Co - requisites - "Therapeutic dentistry", "Pharmacology" and others.

**Postrequisites** - "Pediatric Therapeutic Dentistry", "Therapeutic Dentistry" and others.

**Aim of the course** - "Endodontic technique in pediatric dentistry" is to achieve the ultimate goals of discipline "Pediatric Therapeutic dentistry" that are based on EPP preparation of doctor on specialty " Dentistry " is the basis for the construction of the content of the course by choice . .

**Objectives of the discipline**: formation of students' knowledge, certain skills and abilities to provide endodontic interventions, materials and tools used in the treatment of complications of caries in temporary and permanent teeth in children of different ages

**Expected results** As a result of studying the discipline "Endodontic technique in pediatric dentistry": the student must: know:

- stages of development of temporary and permanent teeth, the timing of root formation in temporary and permanent teeth and resorption in temporary;
- features of the anatomical structure of temporary and permanent teeth at different stages of their development and the structure of the endodontic;
- basic research methods in endodontic treatment of children;
- indications, contraindications, materials for direct coating of the pulp of temporary and permanent teeth in children;
- endodontic tools: types, purpose, sequence and technique of use in the treatment of complicated caries of temporary and permanent teeth;
- methods of instrumental treatment of root canals of temporary and permanent teeth at different stages of their development, indications for their use;
- machine techniques of mechanical processing of root canals, indications for their use in children;
- methods of sound and ultrasonic treatment of root canals, indications for their use in children;
- means for drug exposure and temporary obturation of root canals: properties, indications for use in temporary and permanent teeth;
- indications for the use of laser, photoactivated solutions, 3mix MP, automated washing of root canals in children;
- materials for long-term temporary obturation of unformed root canals of permanent teeth: properties, methods of application;
- materials for one-time apexification, technique of its execution;
- modern methods of amputation treatment of pulpitis of temporary and permanent teeth in children: tools and techniques;
- materials for permanent obturation of root canals in temporary and permanent teeth in children: properties, selection and method of application;

- methods of permanent obstruction of the root canals of permanent teeth at different stages of their development; vertical condensation of heated guttapercha, use of thermophilic.
- complications in endodontic treatment in children, their prevention and elimination;
- methods of restoring the anatomical shape of temporary and permanent teeth after endodontic treatment in children.

#### Be able:

- determine the working length of the tooth by different methods;
- to carry out instrumental processing of the root canal by various methods;
- to wash the root canal using an endodontic syringe;
- to close the unformed tip of the root of a permanent tooth with a material based on AIT;
- perform temporary obstruction of the root canal in temporary and permanent teeth for therapeutic purposes;
- perform permanent filling of the root canal of the temporary tooth;
- perform permanent filling of the root canal of a permanent tooth by the method of one pin and the method of lateral condensation of gutta-percha;
- be able to make a non-standard gutta-percha pin:
- be able to perform a vital amputation of the pulp in a temporary tooth using formocresol or ferrous sulfate;
- be able to perform a vital amputation of the pulp in a permanent tooth with the use of materials based on AIT;
- be able to close the perforation of the root canal wall and the bifurcation of a permanent tooth;
- be able to remove a broken tool from the root canal:
- be able to unseal the root canal, sealed with gutta-percha.

# **Course description**

# Forms and methods of teaching

The course will be presented in the form of seminars (24 hours), lectures (12) for the organization of independent work of students (68 hours). P Eid while teaching discipline used methods: the story of lecturer demonstration of Power Point and explanation, conversation, analysis of the new information. During a performance seminar classes, students use

the theoretical knowledge to perform tasks. It is assumed of group consultations (1 hr. Mr. and week by scheduling consultations)

# Recommended reading:

- 1. Therapeutic dentistry of childhood. Volume 2. / [Khomenko LA, Maidannik VG, Golubeva VG etc.]; under ed. prof. L.A. Khomenko. К .: Книга-плюс, 2017. 808c.
- 2. Khomenko LA, Bidenko NV Practical endodontics; tools, materials and methods. Kiev: Book-plus, 2005. 224 p.
- 3. Features of disinfection and sterilization in dentists under ed .. prof .. Bazikyan EA .. GEOTAR Media. 2016. 112 p.
- 4. Propaedeutics of pediatric therapeutic dentistry / [Khomenko LA, Ostapko EI, Bidenko NV etc.]; under ed. prof. L.A. Khomenko. К .: Книга-плюс, 2015. 320 с
- 5. Dental diseases : therapeutic dentistry, ed. Prof. Borisenko AV К.: Медицина, 2017. 664 с.

## **Lecture topics**

- **Topic 1.** The concept of endodontics, its components. Root canal system of temporary and permanent teeth in children. Morphological features of the maxillofacial area in children that are important for endodontic treatment.
- **Topic 2.** Diagnosis in endodontics. Basic principles of X-ray examination in endodontic treatment of children. Methods of determining the working length of the tooth.
- **Topic 3.** Endodontic treatment of temporary teeth. Features of the structure of temporary teeth, the choice of treatment for pulpitis and periodontitis in temporary teeth. Congratulatory amputation and extirpation. Features of restoration of temporary teeth after endodontic treatment.
- **Theme 4.** Endodontic of treatment n I of permanent teeth with incomplete root formation, features endodontic surgery, instrumental and pharmacological treatment of root canals, the concept of apeksohenez and apexification. Means and methods for their implementation in children
- **Topic 5.** Drug support of endodontic treatment in children. Means for drug influence and temporary obturation of root canals, methods of their application at children.
- **Topic 6.** Complications of endodontic treatment.

## **Topics of seminars:**

1. Subject Endodontics instruments and devices, types, appointment, Ambassador idovnist use.

- **Topic 2.** Materials for temporary and permanent obturation of root canals in temporary and permanent teeth in children: properties, selection and method of application.
- **Topic 3.** Methods of instrumental treatment of root canals of temporary and permanent teeth in children at different stages of their development, indications for their use. International protocols.
- **Topic 4.** Medical support of instrumental treatment of root canals in children. Means for washing and chemical expansion of root canals. Root canal irrigation protocols.
- **Topic 5.** Techniques of root canal obturation of temporary and permanent teeth in children.

#### Evaluation.

The results of the test are evaluated on a two-point scale: "passed" and "not passed":

The results of the test are evaluated on a two-point scale: "credited" and "not credited":

"PASSED" gets a student who has attended all practical classes, shows theoretical knowledge in the curriculum of the elective course, mastered practical skills, mastered the basics and read additional literature, correctly answered test questions (more than 71%). The total amount of points for the current educational activity must be not less than 120 points.

"NOT PASSED" is awarded to a student who has not found theoretical knowledge in the scope of the elective curriculum, does not have basic practical skills. During the semester, he missed practical classes in an elective course without a good reason. Did not solve 70% of test questions. The total amount of points for the current educational activity is less than 120 points

Independent work (IV) of students

Students' work consists of self-study of a certain list of topics or topics that require in-depth study. ID is controlled by tests and control papers. Questions related to self-study are included in the means ofncontrol. The entire scope of the IW contains tasks that require the student to work systematically independently..

#### **COURSE POLICY**

The student must acquire knowledge, perform all types of educational tasks, pass all types of educational control, attend all types and forms of classes provided for in the curriculum, avoiding omissions and delays.

Deadline and recompilation policy.

The student works off a missed lecture in the form of writing an abstract on the topic of the lecture. The student works off the missed practicaclass by answering questions of the teacher on duty (twice a week on Tuesdays and Saturdays).

# Academic Integrity Policy

Observance of academic integrity by students of education presupposes independent performance of educational tasks, tasks of current and final control of learning outcomes.

Unacceptable in the educational activities of participants in the educational process is the use of family or business ties to obtain a positive and higher assessment in the implementation of any form of control of learning outcomes, the use of prohibited aids or technical means (cheat sheets, headphones, telephones, smartphones, etc.); passing of procedures of control of results of training by fictitious persons.

For violation of academic integrity, the applicant may be held subject to the following academic liability:

- -reduction of assessment (exam, test, etc.);
- -re-passing the assessment (exam, test, etc.);
- -appointment of additional control measures (additional individual tasks, tests, etc.);
- -re-passing the relevant educational component of the educational program;
- -deductions from the university.

## Attendance and lateness policy.

Absence of a student at lectures or practical classes is noted in the register of attendance in the form of a mark "ab". The student must work off the practical classesduring2 weeks.

#### *Mobile devices*

The use of a smartphone, tablet or other device is allowed with the permission of the teacher.

Behavior in the audience. Work in  $\phi$  team (student group, staff of the department, employees of the clinical base of the department) is provided. The communication environment is friendly, creative, open to constructive criticism.