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DECANATUL STOMATOLOGII

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FACULTY OF STOMATOLOGY STUDY PROGRAM 0911.1 STOMATOLOGY DEPARTMENT OF PEDIATRIC ORAL AND MAXILLOFACIAL SURGERY AND PEDODONTICS "ION LUPAN"

APPROVED

at the meeting of the Commission for Quality Assurance and Evaluation of the Curriculum in Stomatology

Minutes No. 1 of 22.09.2020

President, PhD MD associate professor Stepco Elena

APPROVED

at the Council meeting of the Faculty of Stomatology

Minutes No. 2 of 30. 09. 2020

PhD MD, associate professor

APPROVED

at the meeting of the Department of pediatric oral and maxillofacial surgery and pedodontics "Ion Lupan"

Minutes No. 1 of 26.08.2020

Head of the Department,
PhD MD, associate professor
Railean Silvia

SYLLABUS

DISCIPLINE PEDIATRIC ODONTOTHERAPY

Integrated studies

Course type: Obligatory discipline



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I. PRELIMINARY

• General presentation of the subject: the role of subject in building skills specific to the instructional and professional training programme /speciality

Pedodontics is a clinical subject, the study of which at the university level allows the future dentists to learn and acquire skills on the prevention, diagnosis, clinical picture and treatment of dental diseases as well as the organization of dental care for children.

Pedodontics is a complex and multicomponent speciality. The training in the field of pedodontics provides the dental students with a set of skills of clinical thinking in terms of the growing organism particularities, demanding forces, time and energy.

The strategy of Pedodontics is focused on the material teaching, the treatment of children with oral diseases, the practical application of knowledge according to contemporary requirements in order to accelerate the accomplishment of the tasks focused on improving children's dental health.

Curriculum purpose in the professional training

To train students and provide them with theoretical and practical knowledge on diagnosis, clinical picture, treatment and prevention of dental caries in children.

- Language of study: Romanian, English.
- Target public: 4th year students, Faculty of Dentistry.



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II. SUBJECT MANAGEMENT

Subject code		S.08.O.095	
Subject name Pediatric odontotherapy			
Subject leader Spinei Iurie, PhD, MD, assoc. prof., Bălteanu Olga, assistent univ.		f.,	
Year IV		Semester	VIII
Total number of hours, including:			90
Lectures	24	Practical work	42
Seminars	18	Individual work	6
Type of assessment	Credit test	Number of credits	3



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III. LEARNING OBJECTIVES

At the end of the course the students will be able to:

At knowledge and comprehension level:

- to know pedodontics basics;
- to know the diagnosis, treatment and prophylaxis of dental caries in children and adolescents.

At application level:

- to establish psychological and verbal contact with children of different ages.
- to establish contact with parents in the treatment of children.
- to perform palpation of soft tissues and facial bones, lymph nodes, salivary glands.
- to perform probing, percussion and to assess tooth mobility.
- to supplement dental formula in children of different ages.
- to determine co, COE, COE + co indices.
- to perform thermodiagnostic and electrodiagnostic tests of teeth.
- to determine and interpret oral hygiene indices in children.
- to perform the diagnosis, treatment and prophylaxis of dental caries in children and adolescents.
- to carry out remineralization therapy.
- to perform grinding and polishing of carious spots.
- to apply solutions, gels and fluoride varnish on teeth surfaces.
- to perform of dental fissure sealing.
- to preparate carious cavities.
- to prepare filling materials (cements, silver amalgam, composites, etc.).
- to restore carious cavities with filling materials.
- to preparate and apply temporary, insulating and curative fillings.
- to perform filling finishing and polishing.
- to perform infiltrative, truncular and applicative anesthesia in children.
- to interpret X-ray, orthopantomograms and tomograms.
- to apply knowledge gained in assessing clinical trials.
- to solve clinical case problems.

At integration level:

- to appreciate the importance of pedodontics in medicine;
- to address creatively the problems of fundamental and clinical medicine;
- to deduce interrelations between pedodontics and other clinical subjects;
- to implement and integrate knowledge gained in clinical subjects;



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- to be able to objectively evaluate and self-assess knowledge within dentistry;
- to be able to assimilate and apply new achievements in pedodontics.
- to be able to implement knowledge gained in research activity;
- to use critically and confidently scientific information using information and communications technologies;
- to be able to use multimedia technology; to receive, evaluate, store, produce, present and exchange information; to communicate and participate in professional dental networks on the Internet;
- to be able to learn to learn, which will contribute to effective management of professional development.



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IV. PRELIMINARY REQUIREMENTS

Deep knowledge in the field of fundamental medicine, therapeutic dentistry, orthopedic dentistry, oral and maxillofacial surgery, etc. is required in order to acquire solid skills in pedodontics. The 4th year students have to prove the following skills:

- language skills;
- confirmed skills in sciences (biology, chemistry, physics);
- digital skills (Internet, document processing, electronic tables and presentations, graphic programs);
- skills in preclinical and clinical dental subjects: dental propedeutics; odontology, orthopedic dentistry, prophylaxis of dental diseases;
- communication and team work skills;
- qualities tolerance, compassion, autonomy.



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V. TOPICS AND APPROXIMATE HOUR DISTRIBUTION

A. Lectures:

No.	TOPIC	
	Pedodontics. 4th year, semester VIII	
1.	Basic compartments of Pedodontics. Pediatric dentistry as a compartment of pediatrics. Child development stages. Health groups. Child mental development.	5
2.	Dental caries in children. Classification. Particularities of clinical evolution of dental caries of temporary teeth. Diagnostic principles.	4
3.	Dental caries in children. Classification. Particularities of clinical development of dental caries of permanent teeth in children. Diagnostic principles.	3
4.	Treatment of dental caries of temporary and permanent teeth in children.	4
5.	Treatment of incipient dental caries in children.	4
6.	Principles of preparation of carious cavities of temporary and permanent teeth in children of different ages. Selection of filling materials of temporary and permanent teeth in children.	4
	Total	24

B. Practical work, seminars, individual work:

No.	Topic	Nu	mber of ho	urs
	Pedodontics.	Seminars	Practical	Individual
	4th year, semester VIII		work	work
1	Examination methods of children of different ages in the	4	7	2
	department of pedodontics. Preparing the child for dental			
	treatment: talk, sedative preparation, local anesthesia, etc.			
2	Dental caries of temporary teeth. Particularities of clinical	4	7	1
	evolution and diagnosis.			
3	Dental caries of permanent teeth in children. Particularities of	4	7	1
	clinical evolution and diagnosis.			
4	Nonoperative treatment of incipient dental caries of temporary	4	7	1
	and permanent teeth in children of different ages. Assessment			
	of effectiveness of non-operative treatment of dental caries.			
5	Operative treatment of dental caries of temporary and	4	7	1
	permanent teeth in children. Principles of preparation of			
	carious cavities of temporary and permanent teeth in children.			
6	Operative treatment of dental caries of temporary and	4	7	
	permanent teeth in children. Filling materials in pedodontic			



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pı	ractice. Selection of filling materials.			
T	Cotal	24	42	6

VI. INSTRUCTIONAL OBJECTIVES AND CONTENT UNITS

VI. INSTRUCTIONAL OBJECTIVES AND CONTENT OWITS			
Objectives	Content units		
Theme (Chapter) 1. Basic compartments of pedodontics. Pediatric dentistry as a compartment of pediatrics. Child development stages. Health groups. Child mental development.			
 to define pediatric therapeutic dentistry-Pedodontics; to know the main branches of pediatric dentistry to comment on the interaction of Pedodontics and Pediatrics; to demonstrate knowledge on child development stages and body development; to apply knowledge and skills on child psychosomatic development at different stages if development; to draw conclusions about child's health status. to develop opinions on child's individual peculiarities in pedodontics; to examine children of different ages; to prepare children for dental treatment: talk, sedative preparation, local anesthesia, etc; to apply knowledge gained at other subjects; to draw conclusions. 	Basic compartments of pedodontics. Pediatric dentistry - compartment of pediatrics. Child development stages. Health groups. Child mental development.		

Theme (Chapter) 2. Dental caries in children. Classification. Particularities of clinical evolution of dental caries of temporary teeth. Diagnosis of dental caries of temporary teeth.

- to define dental carie;
- to know classification of dental caries of temporary teeth;
- to know dental caries etiology, pathogenesis and risk factors in children;
- to know and be able to perform clinical and paraclinical examination of children with dental caries of temporary teeth;
- to know particularities of clinical development of dental caries in temporary teeth;
- to know and be able to diagnose dental caries of temporary teeth;
- to apply knowledge gained at other subjects.
- to draw conclusions.

Dental caries of temporary teeth in children. Classification of dental caries of temporary teeth. Particularities of clinical evolution of dental caries of temporary teeth.

Diagnosis of dental caries of temporary teeth.

Theme (Chapter) 3. Dental caries of permanent teeth in children. Particularities of clinical evolution



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Objectives	Content units
and diagnosis.	
 to define dental caries; to know classification of dental caries of permanent teeth; to know dental caries etiology, pathogenesis and risk factors in children; to know and be able to perform clinical and paraclinical examination of children with dental caries of permanent teeth; to know particularities of clinical development of dental caries of permanent teeth; to know and be able to diagnose dentalcaries of permanent teeth; to apply knowledge gained at other subjects. to draw conclusions. 	Dental caries of permanent teeth in children. Classification of dental caries of permanent teeth. Particularities of clinical development of dental caries in permanent teeth. Diagnosis of dental caries of permanent teeth.

Theme (Chapter) 4. Non-operative treatment of incipient dental caries of temporary and permanent teeth in children of different ages. Assessment of effectiveness of non-operative treatment of dental caries.

- to know treatment methods of dental caries of temporary and permanent teeth in children of different ages;
- to know and be able to perform non-operative treatment of incipient dental caries of temporary and permanent teeth in children of different ages;
- to know preparations for exogenous and endogenous therapy of dental caries of temporary and permanent teeth in children;
- to evaluate effectiveness of non-operative treatment of dental caries;
- to apply knowledge gained at other subjects.
- to draw conclusions.

Non-operative treatment of incipient dental caries of temporary and permanent teeth in children of different ages.

Preparations for exogenous and endogenous therapy of dental caries of temporary and permanent teeth in children

Assessment of effectiveness of nonoperative treatment of dental caries.

Theme (Chapter) 5. Operative treatment of dental caries of temporary and permanent teeth in children. Principles of cavity preparation of temporary and permanent teeth in children of different ages.

- to know methods of treatment of dental caries of temporary and permanent teeth in children of different ages;
- to know and be able to perform treatment of incipient dental caries of temporary and permanent teeth in children of different ages;
- to know methods and particularities of cavity preparation of temporary and permanent teeth in children of different ages;

Operative treatment of dental caries of temporary and permanent teeth in children. Principles of cavity preparation in temporary and permanent teeth in children of different ages.



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Objectives	Content units
to apply knowledge gained at other subjects.	
• to be able to draw conclusions.	
Theme (Chapter) 6. Operative treatment of dental c children. Filling materials in pedodontic practice. Selecti	1 1
 to know filling materials and their properties in the operative treatment of dental caries of temporary and permanent teeth in children of different ages; to know the indications for application of filling materials in pedodontic practice; to know and be able to perform the restoration of the carious defects of temporary and permanent teeth in children of different ages; to apply the accumulated knowledge at other subjects; 	Operative treatment of dental caries of temporary and permanent teeth in children. Filling materials in pedodontic practice. Selection of filling materials.
• to be able to draw conclusions.	



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VII. PROFESSIONAL (SPECIFIC) (SS) AND TRANSVERSAL (TS) SKILLS AND LEARNING OUTCOMES

✓ PROFESSIONAL (SPECIFIC) SKILLS (SS)

- **SS**1. To know thoroughly the particularities of structure, development and functioning of temporary and permanent teeth in children at different stages of development.
- SS2. To elaborate the plan of diagnosis, treatment and prevention of dental caries in temporary and permanent teeth in children.
- **SS**3.To use medical techniques, instrumental and laboratory investigations, digital technologies for the diagnosis and treatment of dental caries in children.
- **SS**4. To perform various practical exercises and procedures in diagnosis, treatment and prevention of dental caries of temporary and permanent teeth in children, based on the knowledge of fundamental and clinical subjects (including dental subjects).
- **SS**5. To plan, coordinate and conduct health promotion activities and prophylactic measures, to improve health and prevent dental caries in children at individual and community levels. To establish and implement complex dispensary plans targeting school and pre-school education.
- **SS**6. To implement professional assessment standards and quality dental services for children with dental caries. To know basic principles and functional structure of the medical and dental care especially for the children in the Republic of Moldova.

✓ TRANSVERSAL SKILLS (TS)

- **TS1**. To apply professional standards of assessment; to act according to professional ethics and law provisions. To promote logical reasoning, practical applicability, evaluation and self-assessment in decision-making;
- **TS2**. To perform activities and define team roles and responsibilities in medical and dental settings. To promote initiative, dialogue, cooperation, positive attitude, respect for others, empathy, altruism and continuous improvement of self-education.
- TS3. To assess systematically personal competencies, roles and expectations; to self-assess the learning process, acquired professional skills and needs, IT knowledge, effective use of language skills, research and communication skills; to provide quality dental care services; to adapt to ongoing health policy requirements and to carry on personal and professional development.

✓ LEARNING OUTCOMES

At the end of the course, the students will be able:

• To characterize the main features of dental caries diagnosis in temporary and permanent teeth and apply them in the treatment of children of different ages.



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- To carry out the treatment of dental caries of temporary and permanent teeth in children.
- To know and apply modern dental materials for the restoration of temporary and permanent teeth in children.
- To make optimal decisions in providing dental care to children with dental caries.
- To apply psychological approaches in the professional activity and daily life in work with children of different age groups.
- To apply different ways of psychological and moral support of children in the treatment of dental caries.



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VIII. INDIVIDUAL WORK OF STUDENTS

One of the least effective learning methods, from the pedagogical poin of view, is passive listening during the lectures, while individual work is much more effective. Therefore, individual practical activity of each student, guided by teachers, is a priority task in Pedodontics.

No.	Expected product	Work strategies	Assessment criteria	Period of accomplishment
1.	Work with books and ICT	To work systematically in the library. To explore up-to-date electronic sources on the topic under discussion	 Quality of judgment, logical thinking and flexibility. Quality of information, material systematization and degree of independent activity. 	During semester
2.	Report	To analyze valuable information sources. To analyze, systematize and synthesize the information on selected topic. To perform reports in accordance with requirements and to deliver presentations publicly.	 Quality of information, material systematization and degree of independent activity. Information and theme match. 	During semester
3.	Case study analysis	To choose and describe case studies. To analyze causes and main issues in case studies. To make predictions on investigated cases. To deduce expected outcomes of cases.	 Analysis, synthesis and generalization of data obtained during independent investigation. Formation of knowledge algorithm based on obtained conclusions. 	During semester



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IX.TEACHING- LEARNING-ASSESSMENT METHODOLOGY

• Teaching and learning methods

Pedodontics is taught classically: lectures and practical work (seminars). At lectures the theoretical course is presented by the course holder/subject leader. Practical work (seminars) helps students to study the particularities of dental care in children as well as diagnosis, clinical picture, treatment and prevention of dental diseases in children.

To better learn the material taught, different semiotic systems (scientific language, graphical and computerized language) and teaching materials (tables, diagrams, microphotos, transparent films) are used. The Information and Communications Technologies - PowerPoint presentations are actively used during lessons and extracurricular activities.

Teaching strategies / techniques

Presentations, interactive lectures, group interviews, debates, creative controversy, brainstorming, group work, individual study, independent work with books and scientific literature, case studies, problem solving, role play, simulation and interactive listening.

• *Methods of assessment* (including the way the final mark is calculated)

The Department of Pediatric Oral and Maxillofacial Surgery, Pedodontics and Orthodontics deals with the 4th year students of the Dentistry Faculty.

Current assessment: frontal and/or individual assessment

- (a) tests,
- (b) problem solving/exercises,
- (c) case studies
- (d) role plays.
- (e) achievement tests

Final assessment: Credit test.

Credit test is a method of assessing knowledge of the 4th year students in Pedodontics.



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The credit test mark is based on the annual average mark. The note at the colloquium is based on the average annual score, which is based on 1 totals (the average of the grades from the seminars), and the practical sample is the average of the notes of practical manuscripts from the practical lessons. The marks above 5 (including 5) are equivalent to "passed", which will be recorded in the student's report card (gradebook). The annual average mark is expressed in numbers according to the grid of assessment mark scaling.

The annual average mark and final examination marks (computer test, written test, oral test) will be expressed in numbers according to the grid of marks (see table above), while the final mark will be expressed in a number with two decimal digits, which will be recorded in the student's report card (gradebook).

Scaling of marks for assessments Method of mark rounding

Grid of intermediary marks (anual average mark, final examination mark)	Grading system	ECTS Equivalent
1,00-3,00	2	F
3,01-4,99	4	FX
5,00	5	
5,01-5,50	5,5	${f E}$
5,51-6,00	6	1
6,01-6,50	6,5	ъ
6,51-7,00	7	D
7,01-7,50	7,5	- C - B - A
7,51-8,00	8	
8,01-8,50	8,5	
8,51-8,00	9	
9,01-9,50	9,5	
9,51-10,0	10	



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Note: Students` unexcused absence at the final examination is qualified with "absent" and is equivalent to "0" (zero). The students have the right to retake the failed examination twice.

X. RECOMMENDED BIBLIOGRAPHY:

A. Compulsory:

- 1. Godoroja P., Spinei A., Spinei I. Stomatologie terapeutică pediatrică. Chișinău, 2003.
- 2. Godoroja P., Spinei A., Spinei I. Paediatric dentistry. Chişinău, 2005.
- 3. Godoroja P., Lupan I., Botnaru A. et al. Stomatologia pediatrică în teste. Chișinău, 2000.

B. Supplimentary:

- 1. Курякина Н.В. *Терапевтическая стоматология детского возраста*. Н.Новгород. 2004.
- 2. Хоменко Л.А. Терапевтическая стоматология детского возраста. Киев. 2007.
- 3. McDonald, Avery, Dean. Dentistry for the child and adolescent. Mosby, 2004.