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**Federal State Autonomous Educational Institution of Higher Education  
PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA named after  
Patrice Lumumba  
RUDN University**

**Institute of Medicine**

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educational division (faculty/institute/academy) as higher education programme developer

## **COURSE SYLLABUS**

### **Pediatric Maxillofacial Surgery**

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course title

**Recommended by the Didactic Council for the Education Field of:**

**31.05.03 Dentistry**

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field of studies / speciality code and title

**The course instruction is implemented within the professional education  
programme of higher education:**

**31.05.03 Dentistry**

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higher education programme profile/specialisation title

2023-2024

## 1. COURSE GOAL(s)

The goal of the course "**Pediatric Maxillofacial Surgery**" is to equip students with the knowledge and skills in the field of diagnosis, treatment and prevention of major surgical dental diseases and injuries of the maxillofacial region in children.

## 2. REQUIREMENTS FOR LEARNING OUTCOMES

Mastering the course (module) "**Pediatric Maxillofacial Surgery**" is aimed at developing the following competencies in students: GC-1; GPC-5; GPC-6; PC-1; PC-2; PC-6.

*Table 2.1. List of competences that students acquire through the course study*

Competence code	Competence descriptor	Competence formation indicators (within this course)
GC-1	Able to carry out a critical analysis of problem situations based on a systematic approach, develop an action strategy	GC-1.1 Analyzes the problem situation as a system, identifying its components and relationships between them
GPC-5	Able to conduct a patient examination in order to establish a diagnosis in solving professional problems	GPC-5.1 Collects anamnesis, analyzing patient complaints, conducting a physical examination at a dental appointment
		GPC-5.2 Formulates a preliminary diagnosis and draws up a plan for laboratory and instrumental examinations of a dental patient
		GPC-5.3 Prepares medical documentation of a dental patient in accordance with regulatory requirements
		GPC-5.8 Conducts differential diagnosis with other diseases/conditions, including emergencies
GPC-6	Able to prescribe, monitor the effectiveness and safety of non-drug and drug treatment in solving professional	GPC-5.9 Establishes a diagnosis based on the current international statistical classification of diseases and related health problems
		GPC-6.1 Develops a plan for the treatment of a dental disease, taking into account the diagnosis, age and clinical picture in accordance with the current procedures for the provision of medical care, clinical

Competence code	Competence descriptor	Competence formation indicators (within this course)
	problems	<p>recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p> <p>GPC-6.2 Selects medical devices (including dental materials) for the preparation of a comprehensive plan for the treatment of dental diseases. Monitor the progress of the patient's treatment</p>
PC- 1	Capable of examining the patient in order to establish a diagnosis	<p>PC-1.1 Performs primary and/or re-examination of the patient in order to establish a preliminary diagnosis</p> <p>PC-1.2 Receives information from patients (their relatives/legal representatives), conducts a survey of patients on the subject of general health, identification of concomitant diseases in order to establish a preliminary diagnosis</p> <p>PC-1.3 Detects dentoalveolar and facial anomalies, deformities and prerequisites for their development, defects in crowns of teeth and dentition in patients based on examination of the patient, laboratory, instrumental, as well as additional examinations in order to establish a preliminary / final diagnosis</p> <p>PC-1.4 Identifies risk factors for oncopathology in patients (including various background processes, precancerous conditions) based on laboratory, instrumental and additional examinations in order to establish a preliminary / final diagnosis</p> <p>PC-1.5 Establishes a preliminary / final diagnosis based on the examination of the patient, laboratory and instrumental studies</p>
PC-2	Capable of prescribing, monitoring the efficacy and safety of non-drug and drug treatments	PC-2.6 Conducts orthopedic treatment of persons with defects in teeth, dentitions within temporary prosthetics, prosthetics of single defects in the dentition, prostheses up to three units (excluding prosthetics on dental implants), partial and complete removable lamellar dentures using modern methods of treatment permitted for applications in medical practice

<b>Competence code</b>	<b>Competence descriptor</b>	<b>Competence formation indicators</b> (within this course)
PC-6	Able to analyze and publicly present medical information based on evidence-based medicine, to participate in scientific research, to introduce new methods and techniques aimed at protecting public health	PC-6.1 Conducts a search for medical information based on evidence-based medicine, interpreting data from scientific publications and / or preparing a presentation for the public presentation of medical information, the results of scientific research

### 3. COURSE IN HIGHER EDUCATION PROGRAMME STRUCTURE

The course refers to the core/variable/elective\* component of (B1) block of the higher educational programme curriculum.

\* - Underline whatever applicable.

Within the higher education programme students also master other (modules) and / or internships that contribute to the achievement of the expected learning outcomes as results of the course study.

*Table 3.1. The list of the higher education programme components/disciplines that contribute to the achievement of the expected learning outcomes as the course study results*

<b>Competence code</b>	<b>Competence descriptor</b>	<b>Previous courses/modules*</b>	<b>Subsequent courses/modules*</b>
GC-1	Able to carry out a critical analysis of problem situations based on a systematic approach, develop an action strategy	Latin language Psychology and pedagogy Bioethics Public health and healthcare	medical rehabilitation Dentistry (module: Clinical dentistry) Orthodontics and pediatric prosthetics Children's dentistry
GPC-5	Able to conduct a patient examination in order to establish a diagnosis in solving professional problems	Latin language Psychology and pedagogy Bioethics Public health and healthcare	medical rehabilitation Dentistry (module: Clinical dentistry) Orthodontics and pediatric prosthetics Children's dentistry
GPC-6	Able to prescribe, monitor the effectiveness and safety of non-drug	Latin language Psychology and pedagogy Bioethics Public health and	medical rehabilitation Dentistry (module: Clinical dentistry) Orthodontics and pediatric prosthetics

	and drug treatment in solving professional problems	healthcare	Children's dentistry
PC-1	Capable of examining the patient in order to establish a diagnosis	Cariesology and disease of hard tissues of teeth Propaedeutics of dental diseases Dental prosthetics (simple prosthetics)	Dental prosthetics (complex prosthetics) Gnathology and functional diagnostics of the temporal mandibular joint
PC-2	Capable of prescribing, monitoring the efficacy and safety of non-drug and drug treatments	Cariesology and disease of hard tissues of teeth Propaedeutics of dental diseases Dental prosthetics (simple prosthetics)	Dental prosthetics (complex prosthetics) Gnathology and functional diagnostics of the temporal mandibular joint
PC-6	Able to analyze and publicly present medical information based on evidence-based medicine, to participate in scientific research, to introduce new methods and techniques aimed at protecting public health	Latin language Psychology and pedagogy Bioethics Public health and healthcare Pediatrics Propaedeutic dentistry (module Propaedeutics) Dentistry (module Fundamentals of Surgical Dentistry)	medical rehabilitation Dentistry (module: Clinical dentistry) Orthodontics and pediatric prosthetics Children's dentistry

\* To be filled in according to the competence matrix of the higher education programme.

#### 4. COURSE WORKLOAD AND ACADEMIC ACTIVITIES

The total workload of the course is 3 credits (108 academic hours).

*Table 4.1. Types of academic activities during the periods of higher education programme mastering (**full-time training**)\**

Type of academic activities	Total academic hours	Semesters/training modules			
		10			
Classroom learning , <i>ac.h.</i>	<b>60</b>	<b>60</b>			
including:					
Lectures (LC)	-	-			
Lab work (LW)	60	60			

Type of academic activities		Total academic hours	Semesters/training modules			
			10			
Seminars (workshops/tutorials) (S)		-	-			
<i>Self-studies</i>		42	42			
<i>Evaluation and assessment (exam/passing/failing grade)</i>		6	6			
<b>Course workload</b>	academic hours_	<b>108</b>	<b>108</b>			
	credits	<b>3</b>	<b>3</b>			

\* To be filled in regarding the higher education programme correspondence training mode.

## 5. COURSE CONTENTS

Table 5.1. Course contents and academic activities types

Course module title	Course module contents (topics)	Academic activities types
<b>Section 1</b> Anesthesia in pediatric surgical dental practice. Tooth extraction in children	<b>Topic 1.1.</b> Anatomical and physiological features of the child's body. Indications and contraindications for general and local anesthesia during outpatient dental surgery in children. The value of premedication. Types of local anesthesia, features of its implementation in children. Emergency conditions at an outpatient dental appointment.	<b>LW</b>
	<b>Topic 1.2.</b> Indications and features of the extraction of temporary and permanent teeth in children. Complications during and after tooth extraction, their prevention and elimination.	<b>LW</b>
	<b>Topic 1.3.</b> Tactics of a dentist in the presence of supernumerary, impacted and dystopic teeth in children.	<b>LW</b>
<b>Section 2</b> Inflammatory diseases of the maxillofacial region in children.	<b>Topic 2.1.</b> Features of the course of odontogenic inflammatory processes in childhood. Inflammatory processes of the soft tissues of the face: lymphadenitis, abscess, phlegmon.	<b>LW</b>
	<b>Topic 2.2.</b> Clinical picture of acute and chronic periostitis of the jaw bones in children of different ages.	<b>LW</b>
	<b>Topic 2.3.</b> Acute odontogenic osteomyelitis of the jaws, hematogenous osteomyelitis of newborns and young children.	<b>LW</b>
	<b>Topic 2.4.</b> Clinical and radiological forms of chronic osteomyelitis of the jaws, principles of rehabilitation of children.	<b>LW</b>
	<b>Topic 2.5.</b>	<b>LW</b>

	Odontogenic inflammatory cysts in children. Possible complications, their prevention.	
<b>Section 3</b> Diseases of the salivary glands in children.	<b>Topic 3.1.</b> Inflammatory diseases of the salivary glands in children. Clinic, diagnosis and treatment.	<b>LW</b>
	<b>Topic 3.2.</b> Salivary disease. Etiology, pathogenesis, clinical picture, diagnosis, treatment, possible complications.	<b>LW</b>
	<b>Topic 3.3.</b> Retention cysts of small and large salivary glands. Etiology, pathogenesis, clinical picture, diagnosis, treatment, possible complications.	<b>LW</b>
<b>Section 4</b> Trauma of the maxillofacial region in children.	<b>Topic 4.1.</b> Dental injuries in children: clinic, treatment, methods of immobilization, outcomes.	<b>LW</b>
	<b>Topic 4.2.</b> Bruises and fractures of the bones of the face in children. Clinic, diagnostics. Methods of conservative and surgical treatment of fractures in children, healing time, possible complications and methods for their prevention.	<b>LW</b>
	<b>Topic 4.3.</b> Injuries of soft tissues of the mouth and face in children. Features of primary surgical treatment of facial wounds.	<b>LW</b>
	<b>Topic 4.4.</b> Burns and frostbite. Clinical picture, treatment, complications. General indications for plastic surgery in childhood. Principles of rehabilitation of children who have suffered trauma to the maxillofacial region.	<b>LW</b>
<b>Section 5</b> Diseases of the temporomandibular joint in children.	<b>Topic 5.1.</b> Primary bone diseases of the temporomandibular joint. Osteoarthritis, secondary deforming osteoarthrosis, bone ankylosis, neoarthrosis : etiology, pathogenesis, clinical picture. Diagnosis, principles of complex treatment of diseases of the temporomandibular joint in children. Methods of surgical treatment, age indications. Goals and objectives of orthodontic treatment. Methods for preventing the development of primary bone diseases.	<b>LW</b>
	<b>Topic 5.2.</b> Functional diseases of the temporomandibular joint in childhood and adolescence. Etiology, pathogenesis, clinical manifestations. Additional examination methods (electromyography, axiography, tomography of the TMJ). Diagnosis, treatment, prevention.	<b>LW</b>

<b>Section 6</b> Congenital and hereditary diseases of the maxillofacial region in children.	<b>Topic 6.1.</b> Congenital cysts and fistulas of the maxillofacial region and neck. Dermoid and epidermoid cysts.	LW
	<b>Topic 6.2.</b> Congenital cleft lip and palate. Prevalence, classification, anatomical and functional disorders, impact on the overall development of the child's body. Secondary deformations of the jaws with cleft palate. Age indications for surgical treatment, the purpose of operations. Clinical examination of children with congenital cleft lip and palate.	LW
	<b>Topic 6.3.</b> Congenital pathology of the oral mucosa: anomalies of attachment of the frenulum and tongue, small vestibule of the oral cavity. Clinical picture, indications for surgical treatment, methods of operations, features of the postoperative period.	LW
<b>Section 7</b> Tumors and tumor-like processes of the maxillofacial region in children.	<b>Topic 7.1.</b> Benign and malignant tumors of the soft tissues of the face and oral cavity in children. Classification, clinical picture, diagnosis, differential diagnosis. Tumors and tumor-like processes of the salivary glands in children.	LW
	Benign and malignant tumors of the bones of the face in children. Odontogenic formations - cysts, odontogenic tumors of the jaws. Etiology, clinical picture, diagnosis.	LW
	<b>Topic 7.2.</b> Features of the clinical course of tumors and tumor-like formations in children. Tactics of surgical treatment of neoplasms of the maxillofacial region in children, indications and contraindications for the use of radiation therapy, principles of complex rehabilitation of children. The principle of oncological alertness at an outpatient dental appointment.	LW

\* - to be filled in only for **full**-time training: LC - lectures; LW - lab work; S - seminars.

## 6. CLASSROOM EQUIPMENT AND TECHNOLOGY SUPPORT REQUIREMENTS

*Table 6.1. Classroom equipment and technology support requirements*

Type of academic activities	Classroom equipment	Specialised educational / laboratory equipment, software, and materials for course study (if necessary)
Lecture	An auditorium for lecture-type classes, equipped with a set of specialized furniture; board (screen) and technical	Technical means: multimedia projector, laptop, WiFi available Internet access.



Type of academic activities	Classroom equipment	Specialised educational / laboratory equipment, software, and materials for course study (if necessary)
	means of multimedia presentations. (classrooms 245, 249)	Software: Microsoft products (OS, office suite, including MS Office / Office 365, Teams)
Lab work	An auditorium for laboratory work, individual consultations, current control and intermediate certification, equipped with a set of specialized furniture and equipment.	Visual aids, dental equipment and surgical instruments for extractions, phantoms, drugs, extracted teeth, x-rays, computer presentation, computers, projector, tables, dental equipment and surgical instruments for emergency care
Self-studies	Classroom for self-studies of students (can be used for seminars and consultations), equipped with a set of specialized furniture and computers with access to the internet.	

\* The premises for students' self-studies are subject to **MANDATORY** mention

## 7. RESOURCES RECOMMENDED FOR COURSE STUDY

### *Main readings:*

- Dentistry of children's age: textbook: at 3 o'clock / O.Z.Topolnitsky (et al.). - M.: GEOTAR - Media, 2016. - Part 2. Surgery. - 259 p.: silt
- Dentistry for children. Surgery. / Ed. S.V. Dyakova. - M.: JSC "Publishing house" Medicine". - 2009.- 384 s.: il

### *Additional literature:*

#### **Electronic full-text materials:**

- Pediatric Dentistry [ [http://www.studmedlib.ru/cgi-bin/mb4x?usr\\_data=access\(rudn,L6IRTLB2S9Z9LV94-X0D5,ISBN9785970435533,5,\\_\)](http://www.studmedlib.ru/cgi-bin/mb4x?usr_data=access(rudn,L6IRTLB2S9Z9LV94-X0D5,ISBN9785970435533,5,_))]: Textbook in 3 parts. Part 2: Surgery. - M.: GEOTAR-Media, 2016. - 320 pp. - ISBN 978-5-9704-3553-3.
- Atlas of pediatric surgical dentistry and maxillofacial surgery [ <http://www.studmedlib.ru/ru/book/ISBN9785970418260.html?SSr=060134178c0127370e8a5582880c283000209b0> ] 2011 Topolnitsky O.Z., Vasiliev A.Yu. Publisher: GEOTAR-Media 264 pp. ISBN: 978-5-9704-1826-0
- Children's maxillofacial surgery. Guide to practical exercises [ <http://www.studmedlib.ru/ru/book/ISBN9785970433539.html?SSr=060134178c0127370e8a5582880c283000209b0> ] / ed. O.Z. Topolnitsky, A.P. Gurganadze - M.: GEOTAR-Media, 2015. - 168 p. - ISBN 978-5-9704-3353-9 - Access mode: <http://www.studmedlib.ru/book/ISBN9785970433539.html>

### ***Printed publications:***

- Children's maxillofacial surgery. Collection of test tasks. Textbook / edited by O.O. Yanushevich , O.Z. Topolnitsky , A.P. Gurgenzadze . -Moscow: GEOTAR-Media, 2020 -144 p.
- Children's maxillofacial surgery. Clinical situational tasks. Textbook / edited by O.Z. Topolnitsky , A.P. Gurgenzadze . -Moscow: GEOTAR-Media, 2020 -288 s and il
- Children's maxillofacial surgery. A guide to practical exercises .. Textbook / edited by O.Z. Topolnitsky , A.P. Gurgenzadze . - 2nd ed. - Moscow: GEOTAR-Media, 2020. - 168 s and il
- Congenital malformations of the maxillofacial region in children. Textbook / edited by O.Z. Topolnitsky , A.P. Gurgenzadze . -Moscow: GEOTAR-Media, 2020 -160 s and il
- Diseases of the temporomandibular joint in children and adolescents [Electronic resource ]: Textbook / S.A. Ulyanov, O.V. Loginopulo , M.A. Pershina. - Electronic text data. - M. : Publishing House of RUDN University, 2017. - 62 p. : ill. - ISBN 978-5-209-08406-8.
- Dental trauma in children [Electronic resource ]: Educational and methodological manual / Comp.: T.F. Kosyreva , V.V. Safroshkina , O.M. Davidyan , E.S. Zaporizhskaya- Abramova. - Electronic text data. - M. : Publishing House of RUDN University, 2014. - 40 p. - ISBN 978-5-209-05964-6.
- Pharmacotherapy in pediatric dentistry [text] / E.V. Zoryan // Clinical Dentistry. - 2012. - No. 2. - S. 6 - 10 .
- Drugs in pediatric dentistry: textbook /. - Minsk: The highest school, 2017. - 320 p. - Bibliography : p. 305 - ISBN 978-985-06-2717-9 ; The same [Electronic resource]. - URL: <http://biblioclub.ru/index.php?page=book&id=480060> (04/08/2019).
- General anesthesia and sedation in pediatric dentistry [Electronic resource ]: A guide. - M. : GEOTAR-Media, 2007. - 184 p. - ISBN 978-5-9704-0505-5.
- Inflammatory diseases, injuries and tumors of the maxillofacial region in children: textbook / comp. S.B. Fishchev , A.G. Klimov, I.V. Berezkina, A.V. Sevastyanov. - St. Petersburg: SpetsLit , 2015. - 57 p. : tab. - Bibliography . in book. - ISBN 978-5-299-00618-6; The same [Electronic resource]. - URL: <http://biblioclub.ru/index.php?page=book&id=483651> (04/08/2019).
- Pediatric surgical dentistry / A.K. Korsak, A.N. Kushner, T.N. Terekhova, Yu.V. Zenkevich ; ed. A.K. Korsak. - Minsk: The highest school, 2013. - 528 p. - ISBN 978-985-06-2334-8 ; The same [Electronic resource]. - URL: <http://biblioclub.ru/index.php?page=book&id=235677> (04/08/2019).
- Dentistry of children's age: Textbook / Persin L.S. Elizarova V.M., Dyakova S.V. - 5th ed. , Rev. and additional - M.: Medicine, 2011. - 639s.
- Congenital cleft lip and palate / S.V. Chuikin , L.S. Persin , N.A. Davletshin . - M. : MIA, 2008. -368 .: ill.
- Bone grafting of the alveolar process: a teaching aid / M.A. Pershina , S.A. Ulyanov . - M.: RUDN, 2012. - 20p.
- Local anesthesia in dentistry: textbook. allowance / Ed. E.A. Bazikyan . - M.: GEOTAR - Media, 2012. - 142 p .: tsv.il.
- Guidelines for writing a term paper on the topic "History of the disease in the clinic of pediatric dentistry" .: / T.F. Kosyreva , V.V. Safroshkina , E.S. Zaporozhskaya- Abramova. – M.: RUDN University, 2012. -24p.

- Emergency conditions in the practice of a dentist. - teaching aid / A.V. Lopatin . - Moscow: RUDN.2014. - 31s.
- Anesthesia in dentistry: Educational manual / S.A. Rabinovich, E.N. Anisimova, L.A. Aksamit. - M.: MGMSU, 2014. - 128 p .: tsv.il.
- Odontogenic inflammatory diseases: a guide / T.G. Robustova [i dr.]; ed. T.G. Robustova. - M.: Medicine, 2006. - 664 p.: ill.
- Odontogenic cysts of the jaws: textbook. Allowance / S.A. Asnina . -M.: Practical medicine, 2012. - 68 p .: tsv.il.
- The state of the dentoalveolar system in patients with congenital complete cleft lip and palate before prosthetics and recommendations for treatment. - Met. Recommendations / T.F. Kosyreva , N.S. Tuturov . – M.: RUDN University, 2012. – 47p.
- Handbook of a dentist. V.V.Trezubov , I.V.Marusov et al . on medicinal products. - S.-P. "Foliant", 2002. -398s.
- Functional - distension diseases of the temporomandibular joint in children and adolescents.: teaching aid / S.A. Ulyanov , M.A. Pershina . - M.: RUDN, 2012.-23s.

*Resources of the information and telecommunications network "Internet":*

1. RUDN ELS and third-party ELS, to which university students have access on the basis of concluded agreements:

- RUDN Electronic Library System - RUDN EBS <http://lib.rudn.ru/>
- ELS "University Library Online" <http://www.biblioclub.ru>
- EBS Yurayt <http://www.biblio-online.ru>
- ELS "Student Consultant" [www.studentlibrary.ru](http://www.studentlibrary.ru)
- EBS "Lan" <http://e.lanbook.com/>
- EBS "Trinity Bridge"

2. Databases and search engines:

- electronic fund of legal and normative-technical documentation <http://docs.cntd.ru/>
- Yandex search engine [https:// www .yandex.ru/](https://www.yandex.ru/)
- Google search engine <https://www.google.ru/>
- abstract database SCOPUS [http:// www . elsevier . en / products / scopus /](http://www.elsevier.com/locate/SCOPUS)

*Training toolkit for self- studies to master the course \*:*

1. The set of lectures on the course “Pediatric Maxillofacial Surgery”
2. The laboratory workshop (if any).on the course “Pediatric Maxillofacial Surgery”
3. The guidelines for writing a course paper / project (if any) on the course “Pediatric Maxillofacial Surgery”.
4. ....

\* The training toolkit for self- studies to master the course is placed on the course page in the university telecommunication training and information system under the set procedure.

**8. ASSESSMENT TOOLKIT AND GRADING SYSTEM\* FOR EVALUATION OF STUDENTS’ COMPETENCES LEVEL UPON COURSE COMPLETION**

The assessment toolkit and the grading system\* to evaluate the competences formation level (GC-1; GPC-5; GPC-6; PC-1; PC-2; PC-6) upon the course study completion are specified in the Appendix to the course syllabus.

\* The assessment toolkit and the grading system are formed on the basis of the requirements of the relevant local normative act of RUDN University (regulations / order).

**DEVELOPERS:**

Associate Professor,  
Department of Pediatric  
Dentistry and Orthodontics

Position, educational department

O.V. Loginopulo

Signature

name and surname.

**HEAD OF EDUCATIONAL DEPARTMENT:**

Department of Pediatric  
Dentistry and Orthodontics

educational department

N.S. Tuturov

Signature

name and surname.

**HEAD OF  
HIGHER EDUCATION PROGRAMME:**

Head department, professor  
Of the Department of  
propaedeutics of dental  
diseases

Position, educational department

S.N. Razumova

Signature

name and surname.