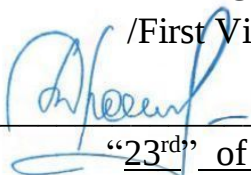


Документ подписан простой электронной подписью
Информация о владельце:
ФИО: Стегний Кирилл Владимирович
Должность: И.о. ректора
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Federal State Budget Educational Institution
of Higher Education
Pacific State Medical University
of the Ministry of Health of the Russian Federation

APPROVED BY

/First Vice-Rector

 / Dvoynikova E.R./
“23rd” of June 2026

DISCIPLINE WORK PROGRAM

B1.V.EC.02.05 Adhesive technologies in Dentistry

(name of discipline)

Specialty

**31.05.03 Dentistry for foreign
students (English-language program)**
(code, name)

Degree

Specialist's degree

Profile

02 "Healthcare"
(in the field of providing health care in
patients with dental pathology)

Mode of study

Full-time

Period of mastering the BEP

5 years
(nominal length of study)

Institute

of Dentistry

Program of the discipline **B1.V.EC.02.05 Adhesive technologies in Dentistry** is based on:

1) Federal State Educational Standard of Higher Education for the specialty approved by the Order No. 984 of Ministry of Science and Higher Education of the Russian Federation dated August 12, 2020.

2) Curriculum for the 31.05.03 Dentistry for foreign students (English-language program), profile 02 "Healthcare" (in the field of providing health care in patients with dental pathology), approved by the Academic Council of FSBEI HE PSMU of the Ministry of Health of Russia Report No. 1-7/25-26 dated March 27, 2026.

Work program for the discipline was developed by the writing team of the Institute of Dentistry of the FSBEI HE PSMU of the Ministry of Health of Russia, under the guidance of the director of the institute, Doctor of Medical Sciences, Associate professor Pervov Yu.Yu.

Developed by:

Assistant professor	Candidate of Medical Sciences	Yatsenko A.K.
(position held)	(academic degree, academic title)	(full name)
Senior lecturer	-	Plotnikova I.N.
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Senior lecturer	-	Popova N.V.
(position held)	(academic degree, academic title)	(full name)
Assistant	-	Loginov K.V.
(position held)	(academic degree, academic title)	(full name)
Assistant	-	Pashkova E.A.
(position held)	(academic degree, academic title)	(full name)

1. GENERAL PROVISIONS

1.1. Purpose and Objectives of Mastering B1.V.EC.02.05 Adhesive technologies in Dentistry

The purpose of mastering the discipline is to achieve universal, general professional, and professional competencies necessary to perform professional functions outlined in the Occupational standard "Dentist (General Dental Practitioner)".

Objectives of mastering the discipline:

1. Develop skills of providing medical aid in outpatient and day hospital settings.

2. DISCIPLINE AS PART OF THE BASIC EDUCATIONAL PROGRAM

Discipline **B1.V.EC.02.05 Adhesive technologies in Dentistry** is included in the Variative part of the Block 1 of the basic educational program for the specialty 31.05.03 Dentistry for foreign students (English-language program), profile 02 "Healthcare" (in the field of providing health care in patients with dental pathology), and is part of the 8th semester's curriculum

3. PLANNED LEARNING OUTCOMES OF THE DISCIPLINE

3.1. Mastering the discipline **B1.V.EC.02.05 Adhesive technologies in Dentistry** is aimed at the development of students' competencies. The discipline facilitates the development of students' competencies corresponding to the types of professional activity.

Labor function	Code and Name of competency of the graduate	Competency Indicators
Professional Competencies		
A/02.7 Prescribing and monitoring the effectiveness and safety of non-pharmacological and pharmacological therapies	PC-2 ability to administer and apply modern methods and/or digital technologies to treat dental patients as well as monitor the effectiveness and safety of the treatment	AI.PC-2 ₁ - develop treatment plans for dental patients aligning with clinical recommendations, treatment protocols, and medical care procedures and health care standards AI.PC-2 ₂ - demonstrates proficiency in administering non-pharmacological and pharmacological therapies and other treatment methods to dental patients, monitors the efficacy and safety of these methods AI.PC-2 ₃ - proficiently uses modern methods and/or digital technologies to treat dental diseases

3.2. Types of professional activity corresponding to competencies developed over the course of mastering **B1.V.EC.02.05 Adhesive technologies in Dentistry**:

Types of professional activity objectives

1. Medical
2. Research and development
3. Pedagogical

Kinds of professional activity objectives

1. *prescribing pharmacological and non-pharmacological treatment and monitoring its efficiency and safety;*

3.3. Planned learning outcomes of mastering the discipline are represented by knowledge, skills, abilities and/or experience, characterize the stages of developing competencies and ensure achievement of the planned outcomes of mastering the basic educational program. Learning outcomes of a discipline are correlated with competency indicators.

4. SCOPE AND CONTENT OF THE DISCIPLINE

4.1. Scope of the Discipline and Types of Academic Work

Type of Academic Work		Total Hours	Semesters
			8
			hours
1		2	3
Classroom hours (total), including:		42	42
Lectures (L)		6	6
Practical classes (C)		36	36
Independent work of the student (IW), including:		30	30
<i>Preparing for classes (CP)</i>		18	18
<i>Preparing for continuous assessment (CAP)</i>		6	6
<i>Preparation for interim assessment (IAP)</i>		6	6
<i>Interim assessment</i>			
Type of interim assessment	pass/fail test (T)	T	T
	exam (E)		
TOTAL: TOTAL credit value	hrs.	72	72
	credits	2	2

4.2. Contents of the Discipline

4.2.1. Topics of Discipline Lectures and Academic Hours per Semester

No.	Lecture Topic	Hours
1	2	3
Semester No. 8		
1.	Adhesive materials. Glass ionomer cements (GIC), compomers, composites, surface sealants. Composition. Application features, selection criteria, and guidelines. Adhesion mechanisms (micromechanical and chemical), adhesion substrates. Bond strength to dental hard tissues and its influence on the choice of filling technique	2
2.	Adhesive systems. Classification of adhesive systems. Selection criteria in various clinical situations. Primer, adhesive, and materials that prepare the surface of hard tissues. Types of etching, algorithms for applying techniques. The concept of a "hybrid layer"	2
3.	Photopolymerizable composites. Classification. Features, selection criteria for different clinical situations and age periods. Restoration methods. The concept of "postbonding". Finishing of restorations	2
Hours per semester total		6

4.2.2. Topics of Discipline Practical Classes and Academic Hours per Semester

No.	Practical Class Topic	Hours
1	2	3
Semester No. 8		
1	Classification of materials. Classification of materials used in dentistry. Classification of filling materials, quality standards, physical, chemical, and biological properties, composition. Requirements for filling materials	7
2	Adhesive materials. Glass ionomer cements (GIC), compomers, composites, surface sealants. Composition. Application features, selection criteria, and	7

	guidelines. Adhesion mechanisms (micromechanical and chemical), adhesion substrates. Bond strength to dental hard tissues and its influence on the choice of filling technique	
3	Adhesive systems. Classification of adhesive systems. Selection criteria in various clinical situations. Primer, adhesive, and materials that prepare the surface of hard tissues. Types of etching, algorithms for applying techniques. The concept of a "hybrid layer"	7
4	Photopolymerizable composites. Classification. Features, selection criteria for different clinical situations and age periods. Restoration methods. The concept of "postbonding". Finishing of restorations	7
5	Final knowledge assessment	8
	Hours per semester total	36

4.2.3. Independent Work of the Student

No.	Name of the Discipline Section	Type of IW	Total Hours
1	3	4	5
Semester No. 8			
1	History and theoretical aspects of adhesive systems in dentistry. Development of adhesive systems. Terminology in adhesive dentistry. Requirements for adhesive systems. Classification principles of adhesive systems. Indications and contraindications for the use of adhesive systems in dental restoration. Functionality of adhesive systems. Formation of a hybrid layer at the enamel level. Formation of a hybrid layer at the dentin level	Written report on select questions, preparing for continuous assessment	15
2	The sequence and technique of using different types of adhesive systems in various clinical situations. Methods of working with modern adhesive systems. Advantages and disadvantages of adhesive systems. The influence of filler type on the properties of adhesive systems. The influence of solvent type on the properties of adhesive systems. Errors and complications when working with adhesive systems and methods for their prevention		15
	Hours per semester total		30

5. REQUIREMENTS FOR IMPLEMENTATION OF DISCIPLINE

5.1. Discipline Requirements for Educational Materials and Provided Information

Essential reading

No.	Name/Title, Resource Type	Author(s)/Editor	Publisher Imprint, Web Address	Number of Copies (accesses) in the Library and Information Center
1	2	3	4	5
1	Therapeutic dentistry: textbook [Electronic resource]	D. A. Trunin, M. A. Postnikov, S. E. Chigarina [et al.]	M.: GEOTAR-Media, 2023. - 920 p. URL: http://www.studentlibrary.ru	Unlimited access

2	Methodological approaches to dental modeling: a tutorial [Electronic resource]	F. Yu. Daurova [et al.]	M.: GEOTAR-Media, 2023. - 144 p. URL: http://www.studentlibrary.ru	Unlimited access
3	Therapeutic Dentistry for the 3rd-year student = Volkova M. N. Therapeutic Dentistry for 3rd-year students. Part 1: teaching aid	M. N. Volkova, N. A. Sakharuk, N. A. Budko	Vitebsk: VSMU, 2021. - 357 p. - Electronic Library System "BookUp"	Unlimited access

Supplementary reading

No.	Name/Title, Resource Type	Author(s)/Editor	Publisher Imprint, Web Address	Number of Copies (accesses) in the Library and Information Center
1	2	3	4	5
1	Adhesive ceramic restorations of anterior teeth	P. Magnier, Yu. Belser; translated from English by N. I. Shaimieva	M.: MEDpress-inform, 2019. - 407, [1] p	1
2	Ceramic dental inlays and vestibular veneers: a teaching aid for students of the Faculty of Dentistry [Electronic resource]	S. B. Fishchev, M. F. Sukharev, A. V. Lepilin, and others	St. Petersburg: SpetsLit, 2018. - 120 p. URL: https://www.books-up.ru/	Unlimited access

Online resources

1. Electronic library system "Student Consultant" <http://studmedlib.ru/>
2. Electronic library system "University Library Online" <http://www.biblioclub.ru/>
3. Electronic library system "Urait" <https://urait.ru/>
4. Electronic library system "BookUp" <https://www.books-up.ru/>
5. Resources owned by the Library and Information Center of FSBEI HE PSMU of the Ministry of Health of Russia <https://tgmu.ru/university/bibliotechno-informacionnyj-centr/resursy-bic/sobstvennye/>

Online resources and respective user guides are available on the Library and Information Center website [Library and Information Center — PSMU \(tgmu.ru\)](http://tgmu.ru)



5.2. Discipline Requirements for Facilities and Resources

Information on the facility and resource availability and requirements of the discipline is available on the [Facility and resource availability and requirements. FSBEI HE PSMU of the Ministry of Health of Russia \(tgmu.ru\)](http://tgmu.ru) page of the official website of the university.



5.3. List of Information Technologies, Information and Reference Systems, Licensed and Free Software (Including Domestically-developed Software):

1. PolycomTelepresence M100 Desktop Conferencing Application (Videoconference system)
2. SunRav Software tTester
3. 7-PDF Split & Merge
4. ABBYYFineReader
5. Kaspersky Endpoint Security
6. INDIGO online testing system
7. Microsoft Windows 7
8. Microsoft Office Pro Plus 2013
9. 1C:University
10. GARANT system
11. MOODLE (Modular Object-Oriented Dynamic Learning Environment)

6. ASPECTS OF THE IMPLEMENTATION OF THE DISCIPLINE FOR STUDENTS WITH DISABILITIES AND SPECIAL NEEDS

6.1. Availability of Accessible Environment

For students with disabilities and special needs, if a written application is submitted, lectures and practical classes are carried out taking into account health limitations, individual capabilities and medical status (hereinafter referred to as individual characteristics) of the student. Compliance with the following general requirements is ensured: teaching aids for collective and individual use are provided, required technical assistance is provided by an assistant; buildings and premises where lectures and practical classes are taking place meet accessibility requirements, other arrangements lack of which makes it impossible or difficult to master the discipline are made.

6.2. Ensuring Compliance with General Requirements

When lectures and practical classes are carried out at the written application of the student, the following general requirements are met: lectures and practical classes for students with disabilities and special needs take place at the same location as for students who do not have disabilities, if this does not cause difficulties for students; an assistant (assistants), who provide(s) students with the necessary technical assistance taking into account individual characteristics of the student, is (are) provided; necessary teaching aids are provided, taking into account individual characteristics of the student.

6.3. Availability of the Internal Policies and Procedures of FSBEI HE PSMU of the Ministry of Health of Russia to Students with Disabilities in a Format Accessible to Them.

All internal policies and procedures of FSBEI HE PSMU of the Ministry of Health of Russia concerning the discipline are made available to students with disabilities in a format accessible to them.

6.4. Increase in the Time Limit of Interim Assessment for Students with Disabilities and Special Needs in Relation to the Established duration

Format of the interim assessment of academic performance within the scope of the discipline conducted for students with disabilities and special needs is selected taking into account individual characteristics of the students (orally, by writing on paper, by typing on a computer, as a test, etc.). The duration of the interim assessment in relation to the established duration is increased at the written

application of the student with disabilities. Time limit for the student's preparation for the test is increased by at least 0.5 hours.

7. STAFFING REQUIREMENTS OF THE DISCIPLINE

Academic teaching personnel that ensure the implementation of the discipline education process meet the requirements of the Federal State Educational Standard of Higher Education for the 31.05.03 Dentistry specialty; list of the aforementioned personnel is available on the website of the educational organization.



8. TUTORIAL WORK

Type of tutorial work	Forms and approaches to tutorial work	Assessment criteria
Assistance in personal growth	Overt Talks and problem-centric debates aimed at promotion of healthy lifestyle. Participation in interdepartmental conferences aimed at formation of healthy lifestyle and development of skills necessary to preserve and improve health.	Portfolio
	Covert – creating atmosphere and infrastructure. Developing a culture of healthy lifestyle, the ability to preserve and improve health. Creating atmosphere of kindness and respect with a high level of communication during implementation of the discipline.	
Civic position and values	Overt Conducting events that facilitate development of civil culture (roundtable discussions, discussions/debates, and talks). Short discussions on current significant events in case the latter occur.	Portfolio
	Covert Focusing on civic values-oriented position and legal awareness. Cultivating mindful social position during professional activity.	
Social values	Overt Highlighting aspects of organization of healthy lifestyle based on health-preserving technologies. Highlighting ecology-related questions, environmental issues as a factor affecting population health and select population risks.	Portfolio
	Covert Identification in social structure during period of education and in professional activity.	