MINISTRY OF HEALTH OF UKRAINE
BUKOVINIAN STATE MEDICAL UNIVERSUTY

APPROVED
Vice-Rector of higher educational establishment on Scientific and Pedagogical Work
_____ Oksana GODOVANETS
"30" 06 2025

STUDENT GUIDE (SYLLABUS) of studying the discipline

"THEORETICAL AND PRACTICAL ASPECTS OF MODERN DENTISTRY"

Field of knowledge 22 Healthcare
Speciality 221 Dentistry
Educational degree Doctor of Philosophy
Year of study I-II
Form of education Full-time (daytime, evening), part-time
Department Paediatric Dentistry

Approved at the meeting of the Department of Paediatric Dentistry on "23" 06 2025 (Minutes No. 15).

Head of Department _____ Tetiana KITSAC

Approved by the Subject Methodological Commission for Dental Disciplines of Bukovinian State Medical University "26" 06 2025 (Minutes No. 6).

Chair of the Subject Methodological Commission _____ Natalia KUZNYAK

Chernivtsi – 2025

1. GENERAL INFORMATION ABOUT SCIENTIFIC AND PEDAGOGICAL STAFF WHO TEACH THE ACADEMIC DISCIPLINE

Department	of Paediatric Dentistry
Surname, first name, patronymic of scientific and pedagogical staff, position, academic degree, academic title, e-mail	Oksana Ivanivna Godovanets – Doctor of Medical Sciences, Professor of the Department of Paediatric Dentistry godovanec.oksana@bsmu.edu.ua Tetiana Kitsak – Doctor of Philosophy, Associate Professor of the Department of Paediatric Dentistry kitsak_tetiana@bsmu.edu.ua
Department website on the official university website	https://www.bsmu.edu.ua/stomatologiyi-dityachogo-viku/
Department website	https://sites.google.com/bsmu.edu.ua/childrens-dentistry-department/
E-mail	dentistry_child@bsmu.edu.ua
Address	87 Ruska Street, Chernivtsi
Contact	+38

2. GENERAL INFORMATION ABOUT THE ACADEMIC DISCIPLINE

Status of the discipline	Compulsory
Number of credits	9
Total number of hours	270
Lectures	20
Practical classes	60
Independent work	190
Type of final assessment	test

3. DESCRIPTION OF THE ACADEMIC DISCIPLINE (ABSTRACT)

The discipline "Theoretical and Practical Aspects of Modern Dentistry" is part of the educational and scientific programme for training doctors of philosophy in the specialty 221 "Dentistry" and is aimed at developing a high level of professional competencies in applicants, necessary for scientific, research and clinical activities.

The discipline provides students with up-to-date knowledge of global trends in dentistry and develops their ability to integrate innovative approaches into clinical practice and scientific research, contributing to the formation of a professional scientific culture among future PhD students.

The course is designed to integrate modern achievements in dental science with practical methods of diagnosis, treatment, modelling and planning, with an emphasis on evidence-based medicine, digital technologies, innovative materials and interdisciplinary approaches.

The programme covers the modern scientific paradigm of dentistry, digital diagnostic methods (intraoral scanning, CBCT, CAD/CAM), 3D printing, new generation biomaterials, minimally invasive techniques, modern endodontic and implantology protocols, regenerative periodontology technologies, elements of oral medicine and the use of artificial intelligence in dental practice.

The subject of study is modern theoretical foundations, technologies, methods of diagnosis, treatment, planning and scientific research in dentistry, including digital tools, innovative biomaterials, minimally invasive approaches, regenerative methods, principles of evidence-based medicine and interdisciplinary clinical relationships. The discipline focuses on the study of scientific trends and technological solutions that determine the development of dentistry at the present stage and influence the training of researchers and clinicians in the field.

4. EDUCATIONAL DISCIPLINE POLICY

4.1. ***List of regulatory documents:***

- Regulations on the organisation of the educational process – https://cutt.ly/ArUqCMFh;
- Instructions for assessing the academic performance of BSMU students in the context of the implementation of the European Credit Transfer System for the organisation of the educational process – https://cutt.ly/yrUqVPvn;
- Regulations on the procedure for making up missed and uncredited classes – https://cutt.ly/jrUqBS36;
- Regulations on appealing the results of final assessment of higher education students – https://cutt.ly/3rUqMAbV;
- Code of Academic Integrity – https://cutt.ly/FrUq1ljK;
- Regulations on the prevention of academic plagiarism – https://cutt.ly/MrUq6QAt;
- Regulations on the procedure and conditions for the selection of elective disciplines by students – https://cutt.ly/srUwo6Ci;
- Regulations on the Procedure for Recognising Learning Outcomes Achieved through Non-Formal and/or Informal Education – https://cutt.ly/SrUwp1ie;
- Rules of Conduct for Students – https://cutt.ly/ErUq72rZ;
- Internal labour regulations – https://cutt.ly/UrUwiACe;
- Regulations on the training of applicants for higher education degrees of Doctor of Philosophy and Doctor of Science –https://surl.lu/aygfsk;
- Regulations on the procedure for awarding the degree of Doctor of Philosophy and revoking the decision of a one-time specialised academic council at Bukovinian State Medical University https://surl.li/zoclfi;
- Regulations on the Commission on Biomedical Ethics https://surl.lt/hcmnln;
- Regulations on primary documentation and the commission for verifying primary documentation of scientific research at Bukovinian State Medical University https://surl.li/dgjnpe.

4.2. ***Policy on compliance with the principles of academic integrity for students:***

- independent completion of individual tasks and correct citation of sources of information when borrowing ideas, statements, or information;
- creation of an effective system for preventing and detecting academic plagiarism in scientific works.

4.3. ***Policy on compliance with the principles and norms of ethics and deontology by students:***

- acting in professional and educational situations from the standpoint of academic integrity and professional ethics and deontology;
- compliance with the university's internal regulations and rules of conduct for students, being tolerant, friendly and thoughtful in communication with students and staff of departments, healthcare institutions, etc.;
- awareness of the importance of examples of human behaviour in accordance with the norms of academic integrity and medical ethics.

4.4. ***Policy on student attendance:***

- attendance at all classes (lectures, practical classes) is mandatory for the purpose of ongoing and final assessment of knowledge (except in cases of valid reasons).

4.5. ***Policy on deadlines and making up for missed or uncredited classes by higher education students:***

- make-up classes for missed classes are held according to the schedule for make-up classes and consultations.

5. PREREQUISITES AND POSTREQUISITES OF THE ACADEMIC DISCIPLINE (INTERDISCIPLINARY CONNECTIONS)

List of academic disciplines on which the study of the academic discipline	List of academic disciplines for which the foundation is laid as a result of studying the academic discipline
Therapeutic dentistry	
Orthopaedic dentistry	
Surgical dentistry	

6. OBJECTIVES AND TASKS OF THE ACADEMIC DISCIPLINE:

6.1. **The aim** of teaching the academic discipline is to develop in third-level higher education (PhD) students the competencies necessary to conduct scientific research in the field of dentistry, introduce modern technologies into clinical practice, critically analyse scientific evidence, develop and evaluate innovative methods of diagnosis and treatment, and develop scientific thinking and the ability for interdisciplinary integration.

6.2. **The** main **objectives** of the course are:

- to deepen students' theoretical knowledge of modern theoretical and practical problems in dentistry and innovative approaches to their solution;
- to develop and improve a set of professional practical skills and abilities of a specialist in dental disciplines to provide highly qualified dental care using modern diagnostic and treatment methods, as well as to ensure the ability to apply them in their own scientific research;
- to form, develop and consolidate a set of moral and psychological qualities that are an integral part of the professional training of doctors of philosophy in dental disciplines for effective scientific, professional and teaching activities;
- to promote the development and improvement of soft skills, in particular professional and scientific communication skills at various levels, the ability to take responsibility, work in a team, prevent conflicts and realise the importance of timely completion of assigned tasks.

7. COMPETENCIES THAT THE ACADEMIC DISCIPLINE HELPS TO DEVELOP:

Integral: Ability to generate new ideas, solve complex problems in dentistry and related interdisciplinary problems, apply scientific and pedagogical methodologies, and conduct independent scientific research whose results are scientifically novel and have theoretical and practical significance.

General:

ZK02. Ability to search for, process and analyse information from various sources.
ZK03. Ability to think abstractly, analyse and synthesise.
3K04. Ability to work in an international context.

Special (professional):

SK01. Ability to conduct original research, achieve scientific results that create new knowledge in dentistry and related fields of medicine, and can be published in leading international scientific journals.
SK02. Ability to initiate, develop and implement complex innovative projects in the field of dentistry and related interdisciplinary projects.

SK05. Ability to generate new ideas for the development of dental theory and practice, identify problems, pose and solve research problems in the field of healthcare, evaluate and ensure the quality of dental research.
SK06. Ability to apply modern digital technologies, databases and other electronic resources, specialised software in scientific and educational activities.
SK07. Ability to critically analyse, evaluate and synthesise new and complex ideas in the field of dentistry and related interdisciplinary issues.
SK08. Ability to engage in continuous self-development and self-improvement.

8. LEARNING OUTCOMES.

The academic discipline ensures the formation of the following learning outcomes (LO):

LR01. To have conceptual and methodological knowledge in dentistry and related subject areas, as well as research skills sufficient to conduct scientific and applied research at the level of the latest global achievements in the relevant field, to acquire new knowledge and/or implement innovations.

LR02. Have a deep understanding of the general principles and methods of human health sciences, the main trends in their development, as well as the methodology of scientific research, and apply them in their own scientific research in the field of dentistry and in teaching practice.

RN04. Formulate and test hypotheses; use appropriate evidence to substantiate conclusions, in particular the results of theoretical analysis, experimental research, statistical data analysis, and available literature data.

RN05. Apply modern tools and technologies for searching, processing and analysing medical and biological information, in particular statistical methods for analysing large volumes and/or complex structures of data, specialised databases and
information systems.

RN06. Apply general principles and methods of research in the field of health care, as well as modern methods and tools, digital technologies and specialised software for conducting research in the field of
dentistry.

RN07. Develop and implement scientific and/or innovative medical projects that make it possible to rethink existing knowledge and create new holistic knowledge and/or professional practice and solve significant problems in the field of medicine.

RN09. Plan and conduct research in dentistry and related interdisciplinary fields using modern tools and adhering to the norms of professional and academic ethics, bioethics, good clinical practice (GMP), critically analyse the results of one's own research and the results of other researchers in the context of the entire body of modern knowledge.

RN10. Develop and research models of processes and systems, use them effectively to obtain new knowledge and/or create innovative products in dentistry and related interdisciplinary fields.

As a result of studying the academic discipline, the student should:

Know:

- conceptual and methodological knowledge in the field or at the intersection of fields of knowledge or professional activity

Be able to:

- solve significant problems in the field of professional activity, science and/or innovation, expand and re-evaluate existing knowledge and professional practices;
- initiate, plan, implement and adjust a consistent process of thorough scientific research in compliance with proper academic integrity;
- critically analyse, evaluate and synthesise new and complex ideas.

Demonstrate:

- free communication on issues related to scientific and expert knowledge with colleagues, the wider scientific community and society as a whole.

- significant authority, innovation, a high degree of independence, academic and professional integrity, consistent commitment to the development of new ideas or processes in advanced contexts of professional and scientific activity;
- the ability for continuous self-development and self-improvement.

9. INFORMATION CONTENT OF THE ACADEMIC DISCIPLINE

MODULE 1. Modern dentistry: scientific approaches, digital technologies and innovative clinical solutions

Content module No. 1. Scientific paradigm, digital dentistry and modern biomaterials in clinical practice

Lecture topic 1. Modern scientific paradigm in dentistry.

Practical class topic 1. Methods of searching, analysing and critically evaluating modern scientific sources in dentistry.

Independent work topic 1. Dental research designs and their role in the formation of clinical protocols.

Practical class topic 2. Working with digital diagnostic systems.

Independent work topic 2. Comparative analysis of the accuracy of various digital diagnostic methods.

Practical class topic 3. Creating a digital model (CAD) and basic 3D designs for dental constructions.

Independent work topic 3. Overview of CAD/CAM platforms: advantages, disadvantages, clinical indications.

Practical class topic 4. Basics of 3D printing in dentistry: modelling and manufacturing templates.

Independent work topic 4. Study of types of 3D printers, dental resins and their properties.

Lecture topic 2. Digital dentistry: diagnostics, planning, modelling.

Practical class topic 5. Analysis of modern biomaterials: composites, ceramics, hybrid materials.

Independent work topic 5. Analytical reviews of various dental materials (strength, adhesion, biocompatibility).

Practical class topic 6. Modern adhesive systems in modern dentistry.

Topic of independent work 6. Molecular mechanisms of adhesion: primers, bonds, monomers (MDP, etc.).

Practical lesson topic 7. Minimally invasive treatment methods in therapeutic dentistry.

Topic of independent work 7. The role of the microbiome in the oral cavity.

Practical class topic 8. Modern endodontic techniques: working with nickel-titanium systems, irrigation.

Topic of independent work 8. Comparison of modern endodontic systems: indications and effectiveness.

Lecture topic 3. Modern biomaterials and innovative technologies in dentistry.

Practical class topic 9. Bioceramic materials: clinical protocols, preparation and application.

Independent work topic 9. Microstructure of bioceramics and the mechanism of their interaction with tooth tissues.

Practical class topic 10. Implantation planning: digital analysis of bone tissue and template creation.

Independent work topic 10. Overview of dental implant systems.

MODULE 2. Innovative clinical technologies and interdisciplinary approaches in modern dentistry

Content module No. 1. Implantology, periodontal regeneration, digital and AI technologies in dental practice

Practical class topic 11. Prosthetic restoration on implants: temporary and permanent structures.

Topic of independent work 11. Occlusion design in implant treatment: principles and tools.

Practical class topic 12. Regional regeneration in periodontology: membranes, bone materials.

Topic of independent work 12. Biological basis of periodontal tissue regeneration: cells, growth factors, matrices.

Practical class topic 13. Risk assessment and diagnosis of periodontal diseases.

Topic of independent work 13. Risk factors for periodontitis: genetic, microbiological, behavioural.

Lecture topic 4. Innovations in therapeutic dentistry and endodontics.

Practical class topic 14. Modern diagnosis of SOPR pathologies.

Independent study topic 14. Precancerous conditions and cancer of the oral cavity: diagnostic algorithm, clinical protocols.

Lecture topic 5. Modern implantology and prosthetic rehabilitation.

Practical class topic 15. Digital orthodontics: model analysis, tooth movement planning.

Independent work topic 15. Comparison of digital platforms for orthodontic analysis (3Shape Ortho, etc.).

Practical class topic 16. AI technologies in dentistry: working with image recognition programmes.

Independent work topic 16. Digital smile design (DSD).

Lecture topic 6. Photo protocol in dentistry.

Independent work topic 17. Laser technologies in dentistry. Types, indications, protocols.

Topic of independent work 18. Interdisciplinary approach in dentistry. Interaction with ENT specialists, neurologists, speech therapists, myofunctional therapists.

10. STRUCTURE OF THE TRAINING DISCIPLINE

No	Names of modules and topics	Number of hours			
		Total	Lectures	Practical classes	Independent work
MODULE 1. Modern dentistry: scientific approaches, digital technologies and innovative clinical solutions Content module No. 1. Scientific paradigm, digital dentistry and modern biomaterials in clinical practice					
1	**Lecture topic 1.** Modern scientific paradigm of dentistry and evidence-based medicine **Practical class topic 1.** Methods of searching, analysing and critically evaluating modern scientific sources in dentistry **Independent work topic 1.** Dental research designs and their role in the formation of clinical protocols.	18	4	4	10
2	**Practical training topic 2.** Working with digital diagnostic systems (intraoral scanner, CBCT analysis) **Topic of independent work 2.** Comparative analysis of the accuracy of various digital diagnostic methods (scanners, CBCT, IOS).	14	-	4	10
3	**Practical lesson topic 3.** Creating a digital model (CAD) and basic 3D designs for dental structures **Topic of independent work 3.** Overview of CAD/CAM platforms: advantages, disadvantages, clinical indications.	14	-	4	10
4	**Practical lesson topic 4.** Fundamentals of 3D printing in dentistry: modelling and manufacturing templates **Topic of independent work 4.** Study of types of 3D printers, dental resins and their properties.	12	-	2	10
5	**Lecture topic 2.** Digital dentistry: diagnostics, planning, modelling **Practical class topic 5.** Analysis of modern biomaterials: composites, ceramics, hybrid materials	18	4	4	10

	Topic of independent work 5. Analytical reviews of various dental materials (strength, adhesion, biocompatibility).				
6	**Practical lesson topic 6.** Modern adhesive systems: application techniques, adhesion testing **Topic of independent work 6.** Molecular mechanisms of adhesion: primers, bonds, monomers (MDP, etc.).	14	-	4	10
7	**Practical lesson topic 7.** Minimally invasive treatment methods in therapeutic dentistry. **Topic of independent work 7.** The role of the microbiome in the oral cavity.	16	-	2	14
8	**Practical training topic 8.** Modern endodontic techniques: working with nickel-titanium systems, irrigation. **Topic of independent work 8.** Comparison of modern endodontic systems: indications and effectiveness.	16	-	4	12
9.	**Lecture topic 3.** Modern biomaterials and innovative technologies in dentistry **Practical class topic 9.** Bioceramic materials: clinical protocols, preparation and application **Topic of independent work 9.** Microstructure of bioceramics and the mechanism of their interaction with tooth tissues.	16	2	4	10
10	**Practical lesson topic 10.** Implantation planning: digital analysis of bone tissue and template creation. **Topic of independent work 10.** Overview of dental implant systems	12	-	2	10
Total		**150**	**10**	**34**	**106**
MODULE 2. Innovative clinical technologies and interdisciplinary approaches in modern dentistry **Content module No. 1. Implantology, periodontal regeneration, digital and AI technologies in dental practice**					
1	**Practical class topic 11.** Prosthetic restoration on implants: temporary and permanent structures **Topic of independent work 11.** Occlusion design in implant treatment: principles and tools.	14	-	4	10
2	**Practical lesson topic 12.** Regional regeneration in periodontology: membranes, bone materials **Topic of independent work 12.** Biological basis of periodontal tissue regeneration: cells, growth factors, matrices.	14	-	4	10
3	**Practical lesson topic 13.** Risk assessment and diagnosis of periodontal diseases **Topic of independent work 13.** Risk factors for periodontitis: genetic, microbiological, behavioural.	16	-	6	10
4	**Lecture topic 4.** Innovations in therapeutic dentistry and endodontics **Practical lesson topic 14.** Modern diagnosis of oral mucosal pathologies **Topic of independent work 14.** Precancerous conditions and cancer of the oral cavity: diagnostic algorithm, clinical protocols.	18	2	4	12
5	**Lecture topic 5.** Modern implantology and prosthetic rehabilitation	18	4	4	10

	Practical class topic 15. Digital orthodontics: model analysis, tooth movement planning **Independent work topic 15.** Comparison of digital platforms for orthodontic analysis (3Shape Ortho, etc.).				
6	**Practical lesson topic 16.** AI technologies in dentistry: working with image recognition programmes **Topic of independent work 16.** Digital smile design (DSD).	14	-	4	10
7	**Lecture topic 6.** Photographic protocol in dentistry. **Independent work topic 17.** Laser technologies in dentistry. Types, indications, protocols.	14	4	-	10
8	**Independent work topic 18.** Interdisciplinary approach in dentistry. Interaction with ENT specialists, neurologists, speech therapists, myofunctional therapists.	12	-	-	12
Total		**120**	**10**	**26**	**84**
Total		**270**	**20**	**60**	**190**

11. THEMATIC LECTURE PLAN

No No	Topic	Number hours
1	Modern scientific paradigm of dentistry	4
2	Digital dentistry: diagnostics, planning, modelling	4
3	Modern biomaterials and innovative technologies in dentistry	2
4	Innovations in therapeutic dentistry and endodontics	2
5	Modern implantology and prosthetic rehabilitation	4
6	Photographic protocol in dentistry.	4
TOTAL		**20**

12. THEMATIC PLAN OF PRACTICAL CLASSES

No No	Topic	Number hours
	Module 1.	
1	Methods of searching, analysing and critically evaluating contemporary scientific sources in dentistry	4
2	Working with digital diagnostic systems (intraoral scanner, CBCT analysis)	4
3	Creating digital models (CAD) and basic 3D designs for dental structures	4
4	Basics of 3D printing in dentistry: modelling and manufacturing of templates	2
5	Analysis of modern biomaterials: composites, ceramics, hybrid materials	4
6	Modern adhesive systems: application techniques, adhesion testing	4
7	Minimally invasive techniques in therapeutic dentistry	2
8	Modern endodontic techniques: working with nickel-titanium systems, irrigation	4
9	Bioceramic materials: clinical protocols, preparation and application	4
10	Implant planning: digital analysis of bone tissue and template creation	2
	Module 2.	
11	Prosthetic restoration on implants: temporary and permanent structures	4
12	Regional regeneration in periodontology: membranes, bone materials	4
13	Risk assessment and diagnosis of periodontal diseases	6
14	Modern diagnosis of oral mucosal pathologies	4
15	Digital orthodontics: model analysis, tooth movement planning	4
16	AI technologies in dentistry: working with image recognition programmes	4
TOTAL		**60**

13. THEMATIC PLAN FOR INDEPENDENT WORK

No No	Topic	Number hours
1	Dental research designs and their role in the formation of clinical protocols.	10

2	Comparative analysis of the accuracy of various digital diagnostic methods (scanners, CBCT, IOS).	10
3	Overview of CAD/CAM platforms: advantages, disadvantages, clinical indications.	10
4	Study of types of 3D printers, dental resins and their properties.	10
5	Analytical reviews of various dental materials (strength, adhesion, biocompatibility).	10
6	Molecular mechanisms of adhesion: primers, bonds, monomers (MDP, etc.).	10
7	The role of the microbiome in the oral cavity.	14
8	Comparison of modern endodontic systems: indications and effectiveness.	12
9	Microstructure of bioceramics and the mechanism of their interaction with tooth tissues.	10
10	Overview of dental implant systems	10
11	Occlusion design in implant treatment: principles and tools.	10
12	Biological basis of periodontal tissue regeneration: cells, growth factors, matrices.	10
13	Risk factors for periodontitis: genetic, microbiological, behavioural.	10
14	Precancerous conditions and cancer of the oral cavity: diagnostic algorithm, clinical protocols.	12
15	Comparison of digital platforms for orthodontic analysis (3Shape Ortho, etc.).	10
16	Digital smile design (DSD).	10
17	Laser technologies in dentistry. Types, indications, protocols.	10
18	Interdisciplinary approach in dentistry. Interaction with ENT specialists, neurologists, speech therapists, myofunctional therapists.	12
TOTAL		**19**

14. LIST OF INDIVIDUAL TASKS

Not provided

15. TASKS FOR INDEPENDENT WORK

They are determined by the teacher individually for each applicant in accordance with the topic and purpose of their scientific research.

16. METHODS AND FORMS OF CONTROL

Ongoing assessment includes oral questioning, analysis of clinical cases, completion of practical tasks and work in a clinical setting under the supervision of a research supervisor.

Methods of ongoing assessment:

- *traditional questioning* — the teacher asks the applicants questions orally, which allows them to assess the level of knowledge and communication skills;
- *"chain questioning" method* — one applicant answers, the next one adds to the answer.

Criteria for assessing the ongoing assessment of applicants' knowledge and skills during the study of the module

Grade "5" (*excellent*) The applicant demonstrates in-depth, systematic knowledge, complete mastery of the material, modern research methods and scientific approaches. Responds confidently and reasonably, demonstrates a high level of competence and independence, is able to apply knowledge in new conditions, has their own scientific ideas.

Grade "4" (*good*). The applicant has sufficient knowledge to understand and apply the material, although minor inaccuracies are possible. Practical skills are at an average level, answers are generally correct but not always complete, independence in practical situations is limited.

Grade "3" (*satisfactory*). Knowledge is fragmentary, with significant gaps in theory or methods. Practical tasks are performed with prompts, the applicant demonstrates a superficial understanding, requires constant supervision and correction.

Grade "2" (*unsatisfactory*). Knowledge is insufficient, the applicant does not possess basic concepts and skills. Practical tasks are performed incorrectly or not performed at all. The minimum level of competence is absent, re-study of the material and additional control are necessary.

Monitoring the completion of independent work. Independent work involves performing various types of tasks aimed at acquiring new knowledge, systematising and generalising it, forming practical skills and abilities, and monitoring the applicant's readiness for practical classes and tests.

16.2. Form, procedure, methodology and criteria for assessing individual independent work.

Not provided for in the programme

16.3. Conditions for admission to the final assessment.

The final assessment (test) is carried out after the completion of all topics of the module during the last class of the module.

Applicants who have completed all types of work provided for in the curriculum and have scored at least the minimum number of points (120 points) are admitted to the test.

16.4. Form, procedure, methodology and criteria for assessment during the final assessment.

At the last thematic class on the subject, after the topic has been covered, the teacher of the study group announces the number of points that the student has scored as a result of the current assessment.

The results of the test are assessed on a two-point scale: "pass" or "fail".

The student receives a "pass" grade if he or she has completed all types of work specified in the working curriculum for the discipline, attended all training sessions (lectures, practical classes) specified in the thematic plan for the discipline (if there are any absences, they have been made up in a timely manner), and has earned a total of at least 120 points in the study of the academic discipline.

The applicant receives a "*fail*" grade if they have missed classes (seminars and lectures) and the number of points for current control is less than the minimum.

17. LIST OF QUESTIONS FOR THE FINAL ASSESSMENT

Not provided

18. SCHEME FOR CALCULATING AND DISTRIBUTING POINTS

The grade for an academic discipline is determined as the sum of the grades for current academic activity (in points) awarded at each seminar on the relevant topic and the number of points for the completion of individual assignments by the student.

The maximum number of points that a student can earn while studying the discipline is 200 points, including:

- for current academic activity – 200 points;

The minimum number of points that a student can earn while studying a discipline is 120 points, including:

- for current academic activity – 120 points;

The following conversion system from the traditional grading system to points is used for ongoing assessment:

Module number, number of teaching hours/number of ECTS credits	Number of content modules, their numbers	Number of practical classes	Conversion of traditional assessments into points					Minimum number of points
			Traditional grades				Points for completing an individual assignment	
			"5"	**"4"**	**"3"**	**"2"**		
Module 1 150/5	1 No. 1	10	20	16	12	0	0	120

Module 2 120/4	1 No.	6	33	26	20	0	0	120

The maximum number of points a student can earn while studying the module is 200.

It is calculated by multiplying the number of points corresponding to a grade of "5" by the number of topics in the module: 25x8=200

The minimum number of points that a student can earn when studying the module is calculated by multiplying the number of points corresponding to a grade of "3" by the number of topics in the module: 15x8=120.

When assessing the mastery of each topic, applicants are graded on a four-point (traditional) scale and on a 200-point scale using the accepted and approved assessment criteria for the academic discipline.

***ECTS* grade**	**Statistical indicator**
"A"	Top 10% of applicants
"B"	Next 25% of applicants
“C”	Next 30% of applicants
“D”	The next 25% of applicants
“E”	The last 10% of applicants

Ranking with grades "A", "B", "C", "D", "E" is carried out by the Doctoral and Postgraduate Department for applicants who study in one speciality and have successfully completed the discipline.

The grade "FX" is given to applicants who have earned the minimum number of points for their current academic performance but have not received a passing grade. This category of applicants has the right to retake the exam.

The grade "F" is given to students who have attended all classroom sessions for the discipline but have not earned the minimum number of points for their current academic performance. This category of students has the right to retake the discipline.

19. RECOMMENDED READING

19.1 Main (basic)* literature:

1. Rozhko M.M., Nespriadko V.P. Orthopaedic Dentistry. Kyiv: VSV "Medicine"; 2020. 720 p.
2. Korol D.M., Kindiy D.D., Ramus M.O., Zubchenko S.G., Kalashnikov D.V., Toncheva K.D. Technology for the manufacture of fixed dental prostheses. Poltava: PP Astraya; 2021. 142 p.
3. Rozhko M.M., editor. Laboratory stages of manufacturing orthopaedic dental prosthesis structures: educational and visual guide. Kyiv: VSV Medicine; 2024. 222 p.
4. Flis P.S., Bannykh T.M. Technique for manufacturing removable dentures: textbook, 3rd edition. Kyiv: Medicine; 2024. 264 p.
5. Timofeev O.O. Surgical dentistry and maxillofacial surgery: in 3 volumes. Kyiv: Medicine, 2024. Vol. 1–3.
6. Tymofeyev O.O. Maxillofacial surgery: clinical cases and modern technologies. Kyiv: Medicine, 2025.
7. Newman M.G., Takei H.H., Klokkevold P.R., Elangovan S. Carranza’s Clinical Periodontology and Implantology. – 14th ed. – Philadelphia: Elsevier, 2024. – 1080 p.

8. Peterson L.J., Ellis E., Hupp J.R., Tucker M.R. Contemporary Oral and Maxillofacial Surgery. 7th ed. St. Louis: Elsevier, 2022. 850 p.
9. Lisovskyi P. Military dentistry: ballistic trauma, maxillofacial surgery and interdepartmental medical examination. Kyiv: Nova Knyha, 2023.
10. Proffit WR, Fields HW, Larson BE, Sarver DM. Contemporary Orthodontics. 6th ed. St. Louis: Elsevier; 2019. 744 p.
11. Nanda R. Biomechanics and Esthetic Strategies in Clinical Orthodontics. 2nd ed. St. Louis: Elsevier Saunders; 2016. 400 p.
12. Okeson JP. Management of Temporomandibular Disorders and Occlusion. 8th ed. St. Louis, Missouri: Elsevier; 2020.

19.2 Supplementary literature:

1. Belikov O, Belikova N, Shayko-Shaykovsky O. Secondary dental and jaw deformities: monograph. LAP LAMBERT Academic Publishing; 2022. 172 p.
2. Belikova N.I., Petrushanco T.O., Belikov O.B. Principles of biomechanics of splinting mobile teeth: monograph. Riga: LAP LAMBERT Academic Publishing; 2019. 187 p.
3. Gasyuk P.A., Machogan V.R., Radchuk V.B. Basic philosophy of clasp prosthetics. Ukrmedknyga; 2022. 124 p.
4. Dobrovolska O.V., Dobrovolsky O.V., Dvornik V.M., Kuz G.M., Marchenko K.V., Ryabushko N.O. Dental implantology: surgical and orthopaedic aspects: textbook. Lviv: Magnolia 2006; 2023. 260 p.
5. Zozulia I.S., Volosovets A.O. Emergency medicine. Emergency (rapid) medical care: 5th edition. Kyiv: VSV "Medicine"; 2023. 560 p.
6. Carranza F.A., Takei G.G., honorary editors. Clinical Periodontology and Implantology According to Newman and Carranza: 14th edition: in 2 volumes. Kyiv: VSV "Medicine"; 2025. 1543 p.
7. Nidzelsky M.Ya., Khilinich E.G., Davydenko V.Yu. 3D Technologies in Orthopaedic Dentistry: Methodological Developments for Students of the Thematic Improvement Cycle. Poltava; 2023. 105 p.
8. Att W, Witkowski S, Strub JR, editors. Digital Workflow in Reconstructive Dentistry. Quintessenz Verlag; 2021. 344 p.
9. Belikova N, Belikov O, Belikova L. Assessment of the clinical condition of the oral cavity before choosing the method of adhesive splinting of movable teeth. In: Alieva M, Nadzhmutdinova N, Abdukayumov A, Inoyatova F, Musaev M, Abdullaeva M, et al. Conceptual options for the development and improvement of medical science and psychology: collective monograph. International Science Group. Boston: Primedia eLaunch; 2023. pp. 56-64. Doi: 10.46299/ISG.2023.MONO.MED.3
10. Belikov O, Roshchuk O, Sorokhan M, Belikova N. Diagnostic features of pathological processes caused by dental prostheses with metal inclusions. Monographic series: «European Science», Book 2 (sge35-02), 2024; ScientificWorld-NetAkhatAV, Karlsruhe, Germany 332–45. https://doi.org/10.30890/2709-2313.2024-35-00-016
11. Beumer III J, Faulkner RF, Shah KC, Wu BM, editors. Fundamentals of Implant Dentistry. Volume 1: Prosthodontic Principles. 2nd ed. Quintessence Publishing Co, Inc.; 2022. 624 p.
12. Calamita MA. Esthetics in Function. Integrating Occlusal Principles into Smile Design. Quintessence Publishing Co, Inc.; 2023. 648 p.
13. Dawson PE. Functional Occlusion: From TMJ to Smile Design. 1st ed. Mosby; 2006. 648 p.
14. Dietschi D, Saratti CM, Erpen S. Tooth Wear. Interceptive treatment approach with minimally invasive protocols. Quintessence Publishing Co, Inc.; 2023. 850 p.
15. Fehmer V, editor. Optimising Clinical and Laboratory Workflows. Where Analog Approaches, Digital Technology, Photography, and Artistry Come Together. Quintessence Publishing Co, Inc.; 2025. 260 p.

16. Huff KD, Benting D. The Art of Complete Denture Therapy for the General Practitioner. Quintessence Publishing Co, Inc.; 2022. 216 p.
17. Jakovac M. Protocol: Standardisation in Fixed Prosthodontics. Quintessence Publishing Co, Inc.; 2024. 732 p.
18. Lang NP, Berglundh T, Giannobile WV, Sanz M, editors. Lindhe's Clinical Periodontology and Implant Dentistry, 2 Volume Set, 7th ed. Wiley-Blackwell; 2021. 1360 p.
19. Romeo G. Personalising Smile Restoration. Technical, Diagnostic, and Aesthetic Approach. Quintessence Publishing (IL); 2025. 176 p.
20. Rosenstiel SF, Land MF, Walter R. Contemporary Fixed Prosthodontics, e-Book. 6th ed. Kindle Ed. Elsevier; 2022. 898 p.
21. Rohrbach S. Complete Dentures. The Legacy Prosthetic System. Quintessence Publishing (IL); 2025. 152 p.
22. Van Dooren E, Cofar F, Clavijo V, Giordani G, Stankov V. Interdisciplinary Esthetic Dentistry. 1st ed. Quintessence Pub Co; 2024. 1276 p.
23. Waliszewski MP. Brudvik's Advanced Removable Partial Dentures. 2nd ed. Quintessence Pub Co; 2022. 256 p.
24. Fonseca R.J. Oral and Maxillofacial Surgery. – 3rd ed. – St. Louis: Elsevier, 2018. – Vol. 1–3.
25. Surgical Dentistry and Maxillofacial Surgery: Textbook; In 2 volumes. Vol. 1 /V.O. Malanchuk, O.S. Volovar, I.Yu. Garlyauskaite et al. – Kyiv: Logos, 2011. Vol. 1. 627 p. + 16 colour plates.
26. Surgical dentistry and maxillofacial surgery: textbook; in 2 volumes. Vol. 2 / V.O. Malanchuk, I.P. Logvinenko, T.O. Malanchuk et al. - Kyiv: LOGOS, 2011. 606 p.
27. Kharkiv L.V., Yakovenko L.N., Chekhova I.L. Surgical dentistry in children. - K.: "Book Plus", 2003.- 480 p.
28. Complications of traumatic injuries of the maxillofacial region: [educational and methodological manual for students of dental faculties of Higher medical educational institutions of IV accreditation levels and dental interns] / O.V. Rybakov, V.D. Akhmerov. - Poltava: Techservice LLC, 2011. - 169 p.
29. Lomnitsky I. Ya. Algorithms of practical skills in surgical dentistry / I. Ya. Lomnitsky, A. V. Netlyukh, O. Ya. Mokryk. Lviv: GalDent, 2011. 152 p.
30. Pivtorak V. I. Short Course in Clinical Anatomy and Operative Surgery: Textbook. / V. I. Pivtorak, O. B. Kobzar, Yu. G. Shevchuk. - Vinnytsia: Nova Knyha; 2019. 224 p.
31. Lalla RV, Brennan MT, Schubert MM. Oral complications of cancer therapy. Pharmacology and Therapeutics for Dentistry. 2011; (6):97-98.
32. Moskalenko V. F., Roschin G. G., Natsyuk M. V. et al. Standards for the provision of emergency medical care at the prehospital stage according to protocols. In: Problems of military health care. Kyiv, 2005, pp. 293-2978.
33. Operative surgery and topographic anatomy of the head and neck: textbook. / V.I. Pivtorak, O.M. Pronina, Yu.M. Vovk et al.; edited by Professors: V.I. Pivtorak, O.M. Pronina. - Vinnytsia: Nova Knyha; 2016. 312 pp.
34. Paediatric surgical dentistry. Outpatient care: textbook for students and interns / P.I. Tkachenko, S.O. Bilokon, O.V. Gurzhii et al. - Poltava, ASMI, 2011. - 102 p.

19.3 Information resources:

1. World Health Organization: www.who.int
2. Ministry of Health of Ukraine: https://moz.gov.ua/
3. National Library of Medicine PubMed: https://pubmed.ncbi.nlm.nih.gov/
4. Researchgate https://www.researchgate.net/
5. Wiley Online Library https://onlinelibrary.wiley.com/
6. Website of the Department of Paediatric Dentistry https://sites.google.com/bsmu.edu.ua/childrens-dentistry-department

7. Website of the Doctoral and Postgraduate Department https://dako.bsmu.edu.ua/
8. Scopus database https://www.scopus.com/home.uri?zone=header&origin=
9. Web of Science database https://access.clarivate.com/login?app=wos&alternative=true&shibShireURL=https:%2F%2Fwww.webofknowledge.com%2F%3Fauth%3DShibboleth&shibReturnURL=https:%2F%2Fwww.webofknowledge.com%2F&roaming=true
10. Scientific periodicals of Ukraine https://journals.uran.ua/
11. Association of Dentists of Ukraine https://www.udenta.org.ua/
12. FDI World Dental Federation http://www.fdiworldental.org/
13. V.I. Vernadsky National Library of Ukraine http://www.nbuv.gov.ua/
14. National Library named after Yaroslav the Wise https://nlu.org.ua
15. Research4Life database https://www.research4life.org/
16. WorldWideScience http://worldwidescience.org

20. SYLLABUS COMPILERS

1. GODOVANETS Oksana Ivanivna – Doctor of Medical Sciences, Professor, Professor of Higher Education, Department of Paediatric Dentistry.
2. KITSAK Tetiana Stepanivna – Candidate of Medical Sciences, Associate Professor, Head of the Department of Paediatric Dentistry.