MINISTRY OF HEALTH OF UKRAINE
BUKOVINIAN STATE MEDICAL UNIVERSITY

«APPROVE»
Vice-Rector of higher educational establishment on Scientific and Pedagogical Work and International Relations
_____ Oksana GODOVANETS
«30» 06 2025

SYLLABUS
of studying the discipline

«ORTHOPEDIC DENTISTRY»

Field of knowledge	22 Health care
Specialty	221 Dentistry
Educational degree	third educational and scientific level (PhD)
Educational year	I, II, III
Form of education	full-time (day, evening), part-time
Department	of Prosthetic Dentistry

Approved at a meeting of the Department of Prosthetic Dentistry
«10» June 2025 (Protocol № 23).

Head of the Department,
Candidate of Medical Sciences,
Associate Professor _____ (Oleksandra ROSHCHUK)

Approved at the meeting of the Subject Methodical Board on dental disciplines
«26» June 2025 (Protocol № 6).

Head of the Subject Methodical Board,
Doctor of Medical Sciences,
Professor _____ (Nataliia KUZNIAK)

Chernivtsi – 2025

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

Department	of Prosthetic Dentistry
Surname, name of scientific and pedagogical staff, position, academic degree, academic title, e-mail	Roshchuk Oleksandra Ihorivna – head of the Department of Prosthetic Dentistry, Candidate of Medical Science, Associate Professor, roshchuk@bsmu.edu.ua; Belikov Oleksandr Borysovych – professor of the higher education institution of the Department of Prosthetic Dentistry, Doctor of Medical Sciences, Professor, belikov@bsmu.edu.ua
Website of the Department on the official University website	https://www.bsmu.edu.ua/ortopedichnoyi-stomatologiyi/
Department website	https://ortstom.bsmu.edu.ua
E-mail	dantist@bsmu.edu.ua
Address	Chernivtsi, 2, Marka Vovchka Str.
Department	+38 (0372) 52-98-69

2. GENERAL INFORMATION ABOUT THE DISCIPLINE

Status of the discipline	elective
Amount of credits	12
General amount of hours	360
Lectures	20
Practical classes	80
Independent work	260
Type of final check	credit

3. DESCRIPTION OF THE DISCIPLINE (ANNOTATION)

The discipline "Orthopedic dentistry" is aimed at developing in students of the Third Educational and Scientific Level advanced theoretical knowledge and practical skills in the diagnosis, treatment planning, and implementation of modern methods of prosthetic treatment.

The study of this course involves mastering the principles of restoring the function of the masticatory system in cases of partial or complete teeth loss, occlusal pathology, and complex maxillofacial pathology.

Special attention is paid to the use of innovative materials, digital technologies, implantology and an interdisciplinary approach to orthopedic treatment. The acquired knowledge and competencies will provide the ability to conduct scientific research, implement the latest orthopedic techniques in clinical practice and increase the efficiency of dental care.

The subject of study of the academic discipline is:

- regularities of diagnosis, prevention and treatment of pathologies of the dentofacial system by restoring the form, function and aesthetics of teeth and dentition using orthopedic structures;
- methods of restoring the functional integrity of the dentofacial apparatus in case of partial or complete loss of teeth, occlusion pathologies and defects of the maxillofacial area;
- modern approaches to the fabrication and use of removable, fixed and implant-supported prostheses, as well as assessment of their impact on the tissues of the oral cavity and the body as a whole.

4. POLICY OF THE DISCIPLINE

4.1. List of normative documents:

- Regulations on the organization of the educational process – https://cutt.ly/ArUqCMFh;
- Instructions for assessing the academic performance of PhD students at BSMU in the context of the implementation of the European Credit Transfer System for the organization of the educational process – https://surl.li/acuduy;

- Regulations on the procedure for reworking missed and uncredited classes – https://cutt.ly/jrUqBS36;
- Regulations on the appeal of the results of the final testing of knowledge of higher education – 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 students to choose elective courses – https://cutt.ly/srUwo6Ci;
- Regulations on the procedure for recognizing learning outcomes achieved through non-formal and/or informal education – https://cutt.ly/SrUwp1ie;
- Rules of conduct for students – https://cutt.ly/ErUq72rZ;
- Rules of internal labor regulations – https://cutt.ly/UrUwiACe.
- Regulations on the training of candidates for the degree of Doctor of Philosophy and Doctor of Science in higher education – https://surl.lu/aygfsk;
- Regulations on the procedure for awarding the degree of Doctor of Philosophy and the cancellation of the decision of the one-time specialized academic council at the BSMU – https://surl.li/zoclfi;
- Regulations on the Biomedical Ethics Commission – https://surl.lt/hcmnln;
- Regulations on primary documentation and the commission for checking primary documentation of scientific research at the BSMU – https://surl.li/dgjnpe.

4.2. Policy on keeping to the principles of academic integrity of students:

- independent performance of individual tasks and correct registration of references to sources of information in case of borrowing ideas, statements, information;
- creating an effective system for preventing and detecting academic plagiarism in scientific papers.

4.3. Policy on keeping to the principles and norms of ethics and deontology by students:

- actions in professional and educational situations from the view of academic integrity and professional ethics and deontology;
- compliance with the University's internal labor regulations and rules of conduct for students; be tolerant, friendly, and thoughtful in communicating with students and staff of departments, healthcare institutions, etc.
- awareness of the importance of examples of human behavior in accordance with the norms of academic integrity and medical ethics.

4.4. Attendance policy for students:

- attendance at all training sessions (lectures, practical (seminar) classes, final modular control) is compulsory for the purpose of current and final assessment of knowledge (except for respectable reasons).

4.5. Deadline policy and completion of missed or uncredited classes by students:

- reworks of missed classes are held according to the schedule of missed or uncredited classes and consultations.

5. PREREQUISITES AND POST-REQUISITES OF THE DISCIPLINE (INTERDISCIPLINARY INTEGRATION)

List of disciplines, on which the study of academic discipline is based	List of academic disciplines, laying the basis as a result of studying the discipline
Propaedeutics of Orthopedic Dentistry	
Orthopedic Dentistry	

6. PURPOSE AND TASKS OF THE DISCIPLINE:

6.1. The purpose of studying the discipline is acquiring and deepening a complex of knowledge, skills, abilities and other competencies in orthopedic dentistry, sufficient to produce new ideas, solve complex problems in the field of professional and research and innovation activities, master the methodology of scientific and pedagogical activities, as well as conduct one's own scientific research, the results of which have scientific novelty, theoretical and practical significance.

6.2. The main tasks of studying the discipline are:

1. to identify new scientific directions in the specialty "Orthopedic Dentistry", theoretical and practical problems of medicine in this field;
2. to master the terminology of the scientific direction being studied;
3. to study the latest methods of research and treatment in orthopedic dentistry;
4. to identify etiological and pathogenetic factors of the most common diseases of the dentofacial apparatus;
5. analyze the clinical picture of the most common diseases of the dentofacial apparatus, identify their complications;
6. create a plan for examining patients and analyze data from laboratory and instrumental examinations for the most common diseases of the dentofacial apparatus and their complications, assess the prognosis for life and working capacity of patients;
7. conduct differential diagnostics, substantiate and formulate a diagnosis for the most common diseases of the dentofacial apparatus;
8. determine the management tactics (recommendations for the choice of orthopedic construction, preparation of the oral cavity for prosthetics, rehabilitation measures) of patients with the most common diseases of the dentofacial apparatus and their complications;
9. diagnose and provide medical care for emergencies in outpatient practice of orthopedic dentistry;
10. conduct primary and secondary prevention, rehabilitation of patients with the most common diseases of the dentofacial apparatus.

7. COMPETENCIES, THE FORMATION OF WHICH IS CONTRIBUTED BY THE DISCIPLINE:

7.1. ***Integral competence:*** The ability to produce new ideas, solve complex problems of dentistry and related interdisciplinary problems, apply the methodology of scientific and pedagogical activities, as well as conduct one's own scientific research, the results of which have scientific novelty, theoretical and practical significance.

7.2. General competences:

GC 01. The ability to solve complex problems based on a systematic scientific worldview and a general cultural outlook while adhering to professional ethics and academic integrity.

GC 02. Ability to search, process and analyze information from various sources.

GC 03. Ability for abstract thinking, analysis and synthesis.

GC 04. Ability to work in an international context.

7.3. Special (professional) competences:

SC01. The ability to perform original research, achieve scientific results that create new knowledge in dentistry and related areas of medicine and can be published in leading international scientific editions.

SC05. The ability to generate new ideas for the development of the theory and practice of dentistry, identify problems, pose and solve research problems in the field of health care, evaluate and ensure the quality of research performed in dentistry.

SC06. The ability to apply modern digital technologies, databases and other electronic resources, specialized software in scientific and educational activities.

SC07. Ability to critically analyze, evaluate, and synthesize new and complex ideas in the field of dentistry and related interdisciplinary issues.

SC08. Ability for continuous self-development and self-improvement.

8. LEARNING OUTCOMES.

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

LO01. Have conceptual and methodological knowledge in dentistry and on the verge of subject areas, as well as research skills sufficient to conduct scientific and applied research at the level of the latest world achievements in the relevant field, obtain new knowledge and/or implement innovations.

LO02. To deeply understand the general principles and methods of human health sciences, the main trends in their development, as well as the methodology of scientific research, to apply them in their own scientific research in the field of dentistry and in teaching practice.

LO04. Formulate and test hypotheses; use appropriate evidence to substantiate conclusions, in particular, the results of theoretical analysis, experimental studies, statistical data analysis, and available literature data.

LO05. Apply modern tools and technologies for searching, processing and analyzing medical and biological information, in particular, statistical methods for analyzing large-scale and/or complex data, specialized databases and information systems.

LO06. Apply general principles and methods of health research, as well as modern methods and tools, digital technologies, and specialized software to conduct research in dentistry.

LO09. Plan and carry out research in dentistry and related interdisciplinary areas using modern tools and adhering to the norms of professional and academic ethics, bioethics, and good clinical practice (GMP), critically analyze the results of one's own research and the results of other researchers in the context of the entire complex of modern knowledge.

LO10. Develop and research models of processes and systems, effectively use them to obtain new knowledge and/or create innovative products in the field of dentistry and related interdisciplinary areas.

As a result of studying the discipline student must:

8.1. Know:

• modern theoretical concepts and scientific approaches in the field of orthopedic dentistry, their evolution and interdisciplinary connections;

• modern research methods for studying the function of the dento-maxillary apparatus, biomechanics of occlusion and articulation;

• principles of evidence-based medicine and biostatistics used in dental research;

• new materials and digital technologies in the design and fabrication of orthopedic structures;

• ethical and legal aspects of scientific activity and clinical research in dentistry.

8.2. Be able to:

- critically analyze modern scientific sources and form their own scientific position on current problems of orthopedic dentistry;
- plan and conduct scientific research, experimental and clinical trials in the field of orthopedic dentistry;
- develop and implement innovative technologies of diagnostics, prosthetics and digital modeling;
- integrate the results of interdisciplinary research into the practice of treating orthopedic patients;
- present the results of their own scientific research at the national and international levels, publish articles in professional publications.

8.3. Demonstrate:

- high level of professional autonomy, ability to lead scientific projects and clinical teams;
- practical skills in implementing innovative orthopedic techniques in the educational process and clinical practice;
- ability to create and test new scientific hypotheses in the field of orthopedic dentistry;
- academic integrity, research ethics and critical thinking;

- readiness for international scientific cooperation and integration into the global educational and scientific space.

9. INFORMATIONAL SCOPE OF THE DISCIPLINE

MODULE 1. Patient management in the orthopedic dentistry clinic.

Content module 1. Managing patients in the orthopedic dentistry clinic in accordance with modern standards and recommendations.

Specific objectives:

After completing the content module, students will be able to:

- perform a complete clinical and additional examination of patients according to modern protocols;
- formulate a preliminary and final diagnosis according to international classifications;
- draw up an individual orthopedic treatment plan taking into account standards and the clinical situation;
- select optimal prosthetic materials and technologies based on the principles of evidence-based medicine;
- document cases in accordance with the requirements of clinical protocols and medical ethics;
- make clinical decisions in complex cases;
- possess communication strategies for informing patients and obtaining informed consent;
- adhere to the principles of professional ethics, safety and quality standards of dental care.

Topic 1. Management of patients with defects of hard dental tissues (partial defects of the tooth crown, increased abrasion of hard dental tissues, complete destruction of the tooth crown).
Topic 2. Stages of fabrication of orthopedic structures for defects in hard dental tissues.
Topic 3. Highly aesthetic prosthetics with veneers and laminates.
Topic 4. Basic and auxiliary materials used for the fabrication of fixed dentures.
Topic 5. Metal-free ceramics: classes, characteristics, applications for the fabrication of aesthetic structures.
Topic 6. Endocrowns: indications, preparation and long-term prognosis.
Topic 7. Groups of fixing cements. Indications for use. Wax modeling. Principles of restoring occlusal contacts in various clinical cases.
Topic 8. Management of patients with defects of the dentition.
Topic 9. Modern methods of orthopedic treatment of dentition defects.
Topic 10. Modern types of partial removable dentures: nylon, acetal, polypropylene, thermoinjectable monomer-free thermoacrylic.
Topic 11. Modern designs of parallelometers. The process of milling wax reproductions and metal frameworks of dental prostheses.
Topic 12. Management of patients with secondary deformations of the dentition.
Topic 13. The use of a facebow and its impact on the accuracy of prosthetics.
Topic 14. Management of patients with pathological abrasion of teeth.
Topic 15. Management of patients with complete loss of teeth.
Topic 16. Modern methods of rehabilitation of patients with complete tooth loss.
Topic 17. Peculiarities of orthopedic treatment tactics in chronic diseases of the mucous membrane (toxic, allergic, candidal stomatitis).
Topic 18. Peculiarities of orthopedic treatment tactics in case of intolerance to structural materials (galvanism, galvanosis).
Topic 19. Management of patients with chronic diseases of the mucous membrane and complications of dental prosthetics.
Topic 20. Management of patients with somatic diseases that require special tactics.

MODULE 2. Current issues of modern prosthetic dentistry

Content module 1. Current issues of modern prosthetic dentistry.

Specific objectives:

After completing the content module, students will be able to:
- analyze current trends in the development of orthopedic dentistry in global and national scientific practice;
- apply innovative technologies and materials to restore the function and aesthetics of the dentofacial apparatus;
- reproduce the principles of digital dentistry (CAD/CAM, 3D printing, virtual treatment planning);
- determine modern approaches to the diagnosis and treatment of complex cases of occlusion disorders, dentition defects and maxillofacial deformations;
- critically analyze modern scientific publications and form their own reasoned position on current problems of orthopedic dentistry;
- apply modern standards and international protocols in patient management;
- integrate interdisciplinary approaches (orthodontics, implantology, maxillofacial surgery) in complex treatment;
- design and implement scientific research aimed at solving current problems of orthopedic dentistry;
- develop and test the latest methods and technologies of prosthetics;
- conduct scientific discussion and present research results in professional forums;
- demonstrate a high level of academic integrity, research ethics and professional autonomy;
- be ready for international cooperation and integration into the global scientific space.

Topic 1. Modern diagnostics of dental patients of orthopedic profile.
Topic 2. Modern diagnostics of the main diseases of the dentofacial apparatus.
Topic 3. Diagnostic value of electromyography, rheoparodontography.
Topic 4. Diagnostic value of computer occlusiography, axiography, spatial study of models in the articulator.
Topic 5. Radiological and digital examination at periodontal tissues diseases.
Topic 6. Criteria for selection of color, shape and size of teeth when prosthetics with fixed structures in the aesthetic zone.
Topic 7. Digital dentistry: from taking an impression to making a denture.
Topic 8. Digital protocol in the clinic of orthopedic dentistry.
Topic 9. Orthopedic rehabilitation of patients with partial defects of the dentition using implants.
Topic 10. Features of orthopedic treatment using implant-supported structures.
Topic 11. Errors and complications in the rehabilitation of patients with partial defects of the dentition.
Topic 12. Errors and complications of orthopedic treatment, ways to prevent and eliminate them.
Topic 13. Orthopedic rehabilitation of patients with complete absence of teeth using implants.
Topic 14. Implant prosthetics: the All-on-X concept and immediate loading.
Topic 15. New directions of scientific research in the specialty "Orthopedic dentistry".
Topic 16. The use of modern achievements of science and technology in orthopedic rehabilitation of patients.
Topic 17. The use of AI in prosthetics, implantology, 3D printing.
Topic 18. 3D printing in modern orthopedic dentistry: materials and technologies.
Topic 19. Application of the principles of evidence-based medicine in orthopedic dentistry.

MODULE 3. Orthopedic treatment and rehabilitation of complex diseases of the dentofacial apparatus.

Content module 1. Orthopedic treatment and rehabilitation of complex diseases of the dentofacial apparatus.

Specific objectives:

After completing the content module, students will be able to:
- evaluate modern methods of diagnostics, visualization and digital treatment planning;
- formulate biomechanical and functional foundations of orthopedic rehabilitation;
- explain international standards and clinical recommendations for the treatment of complex orthopedic patients;

- conduct in-depth clinical and functional analysis of complex cases of diseases of the dentofacial apparatus;
- develop individual comprehensive treatment and rehabilitation schemes taking into account modern protocols;
- apply digital technologies (CAD/CAM, 3D printing, virtual modeling) in the planning and implementation of orthopedic treatment;
- evaluate the effectiveness and long-term results of orthopedic rehabilitation;
- conduct scientific research aimed at improving treatment methods and developing innovative designs;
- demonstrate a high level of professional autonomy and the ability to manage multidisciplinary teams;
- present the results of scientific research at the international level and implement them in practice;
- adhere to the principles of evidence-based medicine, academic integrity, and research ethics.

Topic 1. Assessment of the prevalence of diseases of the dento-maxillary apparatus, determination of the need for orthopedic treatment, including with support on dental implants, and development of preventive measures for complications of orthopedic treatment.
Topic 2. Modern ideas about the organization of orthopedic care for the population.
Topic 3. Modern diagnostic methods for detecting complications of orthopedic treatment.
Topic 4. Comparative characteristics of preparation methods for various restorations (cast crowns, veneers, inlays, onlays). Techniques for restoring teeth after endodontic treatment.
Topic 5. Orthopedic treatment with various types of indirect restorations.
Topic 6. Photo protocol in orthopedic dentistry.
Topic 7. Modern principles of rehabilitation of patients with occlusal and articulation disorders.
Topic 8. Occlusal and articulation disorders: clinical features, diagnostics, treatment.
Topic 9. Tactics of complex treatment for periodontal tissue diseases, selection of orthopedic structures based on biomechanics.
Topic 10. Modern principles of rehabilitation of patients with diseases of the temporomandibular joint, muscle dysfunctions.
Topic 11. The use of different types of caps in diseases of the temporomandibular joint.
Topic 12. Working with universal articulators, facebow adjustment.
Topic 13. Rehabilitation of patients with defects of the palate, jaws and face, including with support on implants.
Topic 14. The use of dental implants in prosthetics of patients with postoperative jaw and face defects.
Topic 15. Patient management after completion of orthopedic rehabilitation.
Topic 16. Patient follow-up after orthopedic treatment. Care of restorations and dentures.
Topic 17. Evaluation of the effectiveness of orthopedic treatment and long-term rehabilitation results.
Topic 18. Legal aspects in the activities of a dentist.

10. STRUCTURE OF THE DISCIPLINE

Names of content modules and topics	Amount of hours				
	Total	including			
		Classroom		Independent students' work	Individual work
		Lectures	Practical classes		
1	2	3	4	5	6
Module 1. Patient management in the orthopedic dentistry clinic					
Content module 1. Managing patients in the orthopedic dentistry clinic in accordance with modern standards and recommendations					
Topic 1. Management of patients	2		2		

with defects of hard dental tissues (partial defects of the tooth crown, increased abrasion of hard dental tissues, complete destruction of the tooth crown).					
Topic 2. Stages of fabrication of orthopedic structures for defects in hard dental tissues.	2	2			
Topic 3. Highly aesthetic prosthetics with veneers and laminates.	11			11	
Topic 4. Basic and auxiliary materials used for the fabrication of fixed dentures.	11			11	
Topic 5. Metal-free ceramics: classes, characteristics, applications for the fabrication of aesthetic structures.	11			11	
Topic 6. Endocrowns: indications, preparation and long-term prognosis.	11			11	
Topic 7. Groups of fixing cements. Indications for use. Wax modeling. Principles of restoring occlusal contacts in various clinical cases.	11			11	
Topic 8. Management of patients with defects of the dentition.	4		4		
Topic 9. Modern methods of orthopedic treatment of dentition defects.	2	2			
Topic 10. Modern types of partial removable dentures: nylon, acetal, polypropylene, thermoinjectable monomer-free thermoacrylic.	11			11	
Topic 11. Modern designs of parallelometers. The process of milling wax reproductions and metal frameworks of dental prostheses.	11			11	
Topic 12. Management of patients with secondary deformations of the dentition.	4		4		
Topic 13. The use of a facebow and its impact on the accuracy of prosthetics.	11			11	
Topic 14. Management of patients with pathological abrasion of teeth.	4		4		
Topic 15. Management of patients with complete loss of teeth.	4		4		
Topic 16. Modern methods of rehabilitation of patients with complete tooth loss.	2	2			
Topic 17. Peculiarities of orthopedic treatment tactics in chronic diseases of the mucous membrane (toxic, allergic, candidal stomatitis).	2		2		

Topic 18. Peculiarities of orthopedic treatment tactics in case of intolerance to structural materials (galvanism, galvanosis).	2		2		
Topic 19. Management of patients with chronic diseases of the mucous membrane and complications of dental prosthetics.	2	2			
Topic 20. Management of patients with somatic diseases that require special tactics.	2		2		
Total on the content module 1	**120**	**8**	**24**	**88**	
TOTAL HOURS	**120**	**8**	**24**	**88**	
Module 2. Current issues of modern prosthetic dentistry					
Content module 1. Current issues of modern prosthetic dentistry.					
Topic 1. Modern diagnostics of dental patients of orthopedic profile.	4		4		
Topic 2. Modern diagnostics of the main diseases of the dentofacial apparatus.	10			10	
Topic 3. Diagnostic value of electromyography, rheoparodontography.	11			11	
Topic 4. Diagnostic value of computer occlusiography, axiography, spatial study of models in the articulator.	11			11	
Topic 5. Radiological and digital examination at periodontal tissues diseases.	10			10	
Topic 6. Criteria for selection of color, shape and size of teeth when prosthetics with fixed structures in the aesthetic zone.	4		4		
Topic 7. Digital dentistry: from taking an impression to making a denture.	4		4		
Topic 8. Digital protocol in the clinic of orthopedic dentistry.	2	2			
Topic 9. Orthopedic rehabilitation of patients with partial defects of the dentition using implants.	4		4		
Topic 10. Features of orthopedic treatment using implant-supported structures.	2	2			
Topic 11. Errors and complications in the rehabilitation of patients with partial defects of the dentition.	4		4		
Topic 12. Errors and complications of orthopedic treatment, ways to prevent and eliminate them.	2	2			
Topic 13. Orthopedic rehabilitation	4		4		

of patients with complete absence of teeth using implants.					
Topic 14. Implant prosthetics: the All-on-X concept and immediate loading.	11			11	
Topic 15. New directions of scientific research in the specialty "Orthopedic dentistry".	2		2		
Topic 16. The use of modern achievements of science and technology in orthopedic rehabilitation of patients.	11			11	
Topic 17. The use of AI in prosthetics, implantology, 3D printing.	11			11	
Topic 18. 3D printing in modern orthopedic dentistry: materials and technologies.	11			11	
Topic 19. Application of the principles of evidence-based medicine in orthopedic dentistry.	2		2		
Total on the content module 1	**120**	**6**	**28**	**86**	
TOTAL HOURS	**120**	**6**	**28**	**86**	
Module 3. Orthopedic treatment and rehabilitation of complex diseases of the dentofacial apparatus.					
Content module 1. Orthopedic treatment and rehabilitation of complex diseases of the dentofacial apparatus.					
Topic 1. Assessment of the prevalence of diseases of the dento-maxillary apparatus, determination of the need for orthopedic treatment, including with support on dental implants, and development of preventive measures for complications of orthopedic treatment.	4		4		
Topic 2. Modern ideas about the organization of orthopedic care for the population.	10			10	
Topic 3. Modern diagnostic methods for detecting complications of orthopedic treatment.	11			11	
Topic 4. Comparative characteristics of preparation methods for various restorations (cast crowns, veneers, inlays, onlays). Techniques for restoring teeth after endodontic treatment.	4		4		
Topic 5. Orthopedic treatment with various types of indirect restorations.	2	2			
Topic 6. Photo protocol in orthopedic dentistry.	11			11	
Topic 7. Modern principles of	4		4		

rehabilitation of patients with occlusal and articulation disorders.					
Topic 8. Occlusal and articulation disorders: clinical features, diagnostics, treatment.	2	2			
Topic 9. Tactics of complex treatment for periodontal tissue diseases, selection of orthopedic structures based on biomechanics.	4		4		
Topic 10. Modern principles of rehabilitation of patients with diseases of the temporomandibular joint, muscle dysfunctions.	4		4		
Topic 11. The use of different types of caps in diseases of the temporomandibular joint.	11			11	
Topic 12. Working with universal articulators, facebow adjustment.	11			11	
Topic 13. Rehabilitation of patients with defects of the palate, jaws and face, including with support on implants.	4		4		
Topic 14. The use of dental implants in prosthetics of patients with postoperative jaw and face defects.	11			11	
Topic 15. Patient management after completion of orthopedic rehabilitation.	10			10	
Topic 16. Patient follow-up after orthopedic treatment. Care of restorations and dentures.	2		2		
Topic 17. Evaluation of the effectiveness of orthopedic treatment and long-term rehabilitation results.	4	2	2		
Topic 18. Legal aspects in the activities of a dentist.	11			11	
Total on the content module 1	**120**	**6**	**28**	**86**	
TOTAL HOURS	**120**	**6**	**28**	**86**	
TOTAL	**360**	**20**	**80**	**260**	

11. THEMATIC PLAN OF LECTURES

Module 1

№	Name of the topic	Amount of hours
1	Stages of fabrication of orthopedic structures for defects in hard dental tissues.	2
2	Modern methods of orthopedic treatment of dentition defects.	2
3	Modern methods of rehabilitation of patients with complete tooth loss.	2
4	Management of patients with chronic diseases of the mucous membrane and complications of dental prosthetics.	2
Total		**8**

Module 2

№	Name of the topic	Amount of hours
1	Digital protocol in the clinic of orthopedic dentistry.	2
2	Features of orthopedic treatment using implant-supported structures.	2
3	Errors and complications of orthopedic treatment, ways to prevent and eliminate them.	2
Total		**6**

Module 3

№	Name of the topic	Amount of hours
1	Orthopedic treatment with various types of indirect restorations.	2
2	Occlusal and articulation disorders: clinical features, diagnostics, treatment.	2
3	Evaluation of the effectiveness of orthopedic treatment and long-term rehabilitation results.	2
Total		**6**

12. THEMATIC PLAN OF PRACTICAL CLASSES

Module 1

№	Name of the topic	Amount of hours
1	Management of patients with defects of hard dental tissues (partial defects of the tooth crown, increased abrasion of hard dental tissues, complete destruction of the tooth crown).	2
2	Management of patients with defects of the dentition.	4
3	Management of patients with secondary deformations of the dentition.	4
4	Management of patients with pathological abrasion of teeth.	4
5	Management of patients with complete loss of teeth.	4
6	Peculiarities of orthopedic treatment tactics in chronic diseases of the mucous membrane (toxic, allergic, candidal stomatitis).	2
7	Peculiarities of orthopedic treatment tactics in case of intolerance to structural materials (galvanism, galvanosis).	2
8	Management of patients with somatic diseases that require special tactics.	2
Total		**24**

Module 2

№	Name of the topic	Amount of hours
1	Modern diagnostics of dental patients of orthopedic profile.	4
2	Criteria for selection of color, shape and size of teeth when prosthetics with fixed structures in the aesthetic zone.	4
3	Digital dentistry: from taking an impression to making a denture.	4
4	Orthopedic rehabilitation of patients with partial defects of the dentition using implants.	4
5	Errors and complications in the rehabilitation of patients with partial defects of the dentition.	4
6	Orthopedic rehabilitation of patients with complete absence of teeth using implants.	4
7	New directions of scientific research in the specialty "Orthopedic dentistry".	2
8	Application of the principles of evidence-based medicine in orthopedic dentistry.	2
Total		**28**

Module 3

№	Name of the topic	Amount of hours
1	Assessment of the prevalence of diseases of the dento-maxillary apparatus, determination of the need for orthopedic treatment, including with support on dental implants, and development of preventive measures for complications of orthopedic treatment.	4
2	Comparative characteristics of preparation methods for various restorations (cast crowns, veneers, inlays, onlays). Techniques for restoring teeth after endodontic treatment.	4
3	Modern principles of rehabilitation of patients with occlusal and articulation disorders.	4
4	Tactics of complex treatment for periodontal tissue diseases, selection of orthopedic structures based on biomechanics.	4
5	Modern principles of rehabilitation of patients with diseases of the temporomandibular joint, muscle dysfunctions.	4
6	Rehabilitation of patients with defects of the palate, jaws and face, including with support on implants.	4
7	Patient follow-up after orthopedic treatment. Care of restorations and dentures.	2
8	Evaluation of the effectiveness of orthopedic treatment and long-term rehabilitation results.	2
Total		**28**

13. THEMATIC PLAN OF INDIVIDUAL WORK

Module 1

№	Name of the topic	Amount of hours
1	Highly aesthetic prosthetics with veneers and laminates.	11
2	Basic and auxiliary materials used for the fabrication of fixed dentures.	11
3	Metal-free ceramics: classes, characteristics, applications for the fabrication of aesthetic structures.	11
4	Endocrowns: indications, preparation and long-term prognosis.	11
5	Groups of fixing cements. Indications for use. Wax modeling. Principles of restoring occlusal contacts in various clinical cases.	11
6	Modern types of partial removable dentures: nylon, acetal, polypropylene, thermoinjectable monomer-free thermoacrylic.	11
7	Modern designs of parallelometers. The process of milling wax reproductions and metal frameworks of dental prostheses.	11
8	The use of a facebow and its impact on the accuracy of prosthetics.	11
Total		88

Module 2

№	Name of the topic	Amount of hours
1	Modern diagnostics of the main diseases of the dentofacial apparatus.	10
2	Diagnostic value of electromyography, rheoparodontography.	11
3	Diagnostic value of computer occlusiography, axiography, spatial study of models in the articulator.	11
4	Radiological and digital examination at periodontal tissues diseases.	10
5	Implant prosthetics: the All-on-X concept and immediate loading.	11
6	The use of modern achievements of science and technology in orthopedic	11

	rehabilitation of patients.	
7	The use of AI in prosthetics, implantology, 3D printing.	11
8	3D printing in modern orthopedic dentistry: materials and technologies.	11
Total		**86**

Module 3

№	Name of the topic	Amount of hours
1	Modern ideas about the organization of orthopedic care for the population.	10
2	Modern diagnostic methods for detecting complications of orthopedic treatment.	11
3	Photo protocol in orthopedic dentistry.	11
4	The use of different types of caps in diseases of the temporomandibular joint.	11
5	Working with universal articulators, facebow adjustment.	11
6	The use of dental implants in prosthetics of patients with postoperative jaw and face defects.	11
7	Patient management after completion of orthopedic rehabilitation.	10
8	Legal aspects in the activities of a dentist.	11
Total		**86**

14. LIST OF INDIVIDUAL TASKS

Not provided.

15. TASKS FOR INDEPENDENT WORK

1. Preparation for practical classes – theoretical, development of practical skills, abilities.
2. Preparation for control of mastery of content modules – theoretical preparation and development of practical skills.
3. Independent development of topics that are not included in the classroom lesson plan.

16. METHODS AND FORMS OF CONTROL

16.1. Form, procedure, methodology, and assessment criteria of current learning activities.

Assessment of current educational activities is carried out at each practical lesson in accordance with the specific objectives of each topic.

When assessing the mastery of each topic of the module, grades are given on a four-point (traditional) scale. The weight of each topic within one module is the same. Grades given on a traditional scale are converted into points.

A grade of "5" is given when the student demonstrates thorough, systematic knowledge, complete mastery of the material, possesses modern research methods, scientific approaches, demonstrates a high level of competence and independence in practical tasks, responds confidently, with arguments, can apply knowledge in new conditions, has his own scientific ideas.

A grade of "4" is given when the student demonstrates knowledge sufficient to understand and apply the material, some shortcomings in details. Practical skills are at an average level, requires little help. The student generally answers correctly, but not always completely, limited independence in practical situations.

A grade of "3" is given when the student demonstrates fragmentary knowledge, there are serious gaps in theory or methods. Practical tasks are performed with prompts. The applicant demonstrates a superficial understanding of the material, requires constant monitoring and correction.

A grade of "2" is given when the student's knowledge is insufficient, he does not possess basic concepts and skills. Practical tasks are performed incorrectly or not performed at all. Lack of a minimum level of competence; requires re-study of the material and additional monitoring.

16.2. Form, procedure, methodology, and assessment criteria of individual work.

Assessment of individual independent work, which is provided for in thematic plans in the form of topics for independent study, is carried out during current educational activities.

16.3. Terms for admission to the final test.

Students who have attended all practical classes provided for in the discipline curriculum and received positive grades ("5", "4", "3"), lectures, completed all types of work, and scored at least the minimum number of points in the module are eligible for credit.

16.4. Form, procedure, methodology, and assessment criteria of the final module test.

The elective discipline ends with a credit. At the last thematic lesson in the discipline, after the end of the analysis of the lesson topic, the teacher announces the amount of points that the applicant has scored based on the results of the current control.

The grade for the module is determined as the sum of the grades of the current educational activity (in points). The maximum number of points assigned when mastering all the topics of the module (credit) is 200.

17. THE LIST OF QUESTIONS FOR THE FINAL MODULE TEST

Not provided.

18. SCORE CALCULATION AND DISTRIBUTION

For the current assessment of modules in the discipline "Orthopedic Dentistry", the following system of converting the traditional grading system into points is used:

Module number indicating the amount of hours/ ECTS credits	Amount of the content modules, their numbers	Amount of topics at practical classes	Converting traditional grades into points					Minimum score
			Traditional scale				Scores for individual task	
			«5»	«4»	«3»	«2»		
Module 1 120/4	1	8	25	20	15	0	0	120
Module 2 120/4	1	8	25	20	15	0	0	120
Module 3 120/4	1	8	25	20	15	0	0	120

The maximum number of points that a student can score when studying a 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:

25*8=200

The minimum number of points that a student can score when studying a module is calculated by multiplying the number of points corresponding to a grade of "3" by the number of topics in the module:

15*8=120

The results of the tests are evaluated on a two-point scale: "passed", "not passed".

The applicant receives a "passed" grade if he has completed all types of work provided for by the working curriculum for the discipline, attended all classes specified in the thematic plan for the

relevant discipline (if there are any absences, he has worked them out in a timely manner), and scored a total number of points in studying the discipline of at least 120.

Applicants studying at the same faculty, course, in the same specialty, based on the number of points scored in the discipline, are ranked on the ECTS scale as follows:

***ECTS* score**	**Statistical indicator**
"A"	Top 10% of students
"B"	Next 25% of students
"C"	Next 30% of students
"D"	Next 25% of students
"E"	Last 10% of students

Ranking with the assignment of grades "A", "B", "C", "D", "E" is carried out by the Department of Doctoral and Postgraduate Studies for students who are studying in one specialty and have successfully completed the study of the discipline.

The grade "FX" is given to students who have scored the minimum number of points for the current educational activity, but who have not received the grade "passed". This category of students has the right to retake the test.

The grade "F" is given to students who have attended all classroom classes in the discipline, but have not scored the minimum number of points for the current educational activity. This category of students has the right to re-study the discipline.

19. RECOMMENDED LITERATURE

18.1. Basic:

1. Newman MG, Klokkevold PR, Elangovan S, Kapila Y, Carranza FA, Takei H. Newman and Carranza's Clinical Periodontology and Implantology, 14th ed. Elsevier; 2023. 1112 p.
2. Rozhko MM, Nespriadko VP. Prosthetic Dentistry: textbook. Kyiv: AUS «Medicine»; 2022. 696 p.
3. Van Dooren E, Cofar F, Clavijo V, Giordani G, Stankov V. Interdisciplinary Esthetic Dentistry. 1st ed. Quintessence Pub Co; 2024. 1276 p.

18.2. Additional:

1. Att W, Witkowski S, Strub JR, editors. Digital Workflow in Reconstructive Dentistry. Quintessenz Verlag; 2021. 344 p.
2. 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. 56-64 p. Doi: 10.46299/ISG.2023.MONO.MED.3
3. 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
4. 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.
5. Calamita MA. Esthetics in Function. Integrating Occlusal Principles into Smile Design. Quintessence Publishing Co, Inc.; 2023. 648 p.
6. Dawson PE. Functional Occlusion: From TMJ to Smile Design. 1st ed. Mosby; 2006. 648 p.
7. Dietschi D, Saratti CM, Erpen S. Tooth Wear. Interceptive treatment approach with minimally invasive protocols. Quintessence Publishing Co, Inc.; 2023. 850 p.

8. Fehmer V, editor. Optimizing Clinical and Laboratory Workflows. Where Analog Approaches, Digital Technology, Photography, and Artistry Come Together. Quintessence Publishing Co, Inc.; 2025. 260 p.
9. Huff KD, Benting D. The Art of Complete Denture Therapy for the General Practitioner. Quintessence Publishing Co, Inc.; 2022. 216 p.
10. Jakovac M. Protocol: Standardization in Fixed Prosthodontics. Quintessence Publishing Co, Inc.; 2024. 732 p.
11. 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.
12. Romeo G. Personalizing Smile Restoration. Technical, Diagnostic, and Esthetic Approach. Quintessence Publishing (IL); 2025. 176 p.
13. Rosenstiel SF, Land MF, Walter R. Contemporary Fixed Prosthodontics, e-Book. 6th ed. Kindle Ed. Elsevier; 2022. 898 p.
14. Rohrbach S. Complete Dentures. The Legacy Prosthetic System. Quintessence Publishing (IL); 2025. 152 p.
15. Waliszewski MP. Brudvik's Advanced Removable Partial Dentures. 2nd ed. Quintessence Pub Co; 2022. 256 p.

18.3. Information resources:

1. Website of the Department of Prosthetic Dentistry [Internet]. [cited 2025 May 25]. Available from: https://ortstom.bsmu.edu.ua
2. World Health Organization [Internet]. [cited 2025 May 25]. Available from: www.who.int
3. National library of medicine PubMed [Internet]. [cited 2025 May 25]. Available from: https://pubmed.ncbi.nlm.nih.gov/
4. Researchgate [Internet]. [cited 2025 May 25]. Available from: https://www.researchgate.net/
5. Wiley Online Library [Internet]. [cited 2025 May 25]. Available from: https://onlinelibrary.wiley.com/

20. COMPILER OF THE SYLLABUS

1. Roshchuk Oleksandra Ihorivna – Head of the Department of Prosthetic Dentistry, Candidate of Medical Science, Associate Professor.