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**REPUBLIC OF UZBEKISTAN**  
**MINISTRY OF HIGHER EDUCATION, SCIENCE AND INNOVATION**

**TASHKENT STATE MEDICAL UNIVERSITY**



Registered

2025

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**FACULTY OF ORTHOPEDIC DENTISTRY I**  
**CURRICULUM**

**Field of Knowledge:** 900000 - Health Care and Social Welfare

**Field of Education:** 910000 - Health Care

**Direction of Education:** of 60910100 -Dentistry (by specializations)

**Education:**

**Tashkent - 2025**

Subject/Module Code FOS1.15606	Academic Year 2025-2026	Semester 5-6	Credits 6.0 (3.0 credits in 5th semester, 3.0 credits in 6th semester)
Subject/Module Type Mandatory	Language of Instruction Uzbek/Russian		Hours per Week 3
Subject Name	Classroom Sessions (hours)	Independent Study (hours)	Total Workload (hours)
Faculty Orthopedic Dentistry 1	90 (45 hours in 5th semester 45 hours in 6th semester)	90 (45 hours in 5th semester 45 hours in 6th semester)	180

### 1. Course Content

The purpose of teaching this subject - is to develop students' clinical reasoning skills through modern pedagogical technologies, focusing on the causes, development mechanisms, clinical presentations, diagnosis, differential diagnosis, and treatment methods of dental hard tissue and dental arch defects, as well as measures for their prevention.

Objective of the discipline - to gradually introduce students to the knowledge related to the sections of the discipline, to teach them and to develop skills; to enhance students' clinical thinking abilities and increase their knowledge retention by applying new pedagogical technologies in the lesson process; to bring practical skills aimed at developing students' clinical thinking to the level of automatism using the assistant-student and student-phantom methods; to provide information about the stages of diagnosis and differential diagnosis of dental hard tissue and dentition defects related to the field, as well as the necessary aspects of treatment and prevention methods.

**The course is prepared based on the program of leading TOP-300 international universities:**

Prosthodontics course program has been improved based on the curriculum of Analytical Chemistry at Al-Farabi University (Kazakhstan), one of the world's leading higher education institutions. This university ranks 163rd in the QS World University Rankings 2024 and has a highly qualified scientific and methodological base in the field of Dentistry.

## II. Main Theoretical Part (Lecture Sessions).

### II.1. The course includes the following topics:

#### 5th semester.

**Topic 1.** Partial destruction of the tooth crown. Classification of hard tissue damage. Etiology, pathogenesis, clinical presentation. International classification of dental defects, letter designation of cavity locations. Black's classification of cavities. ICDAS according to Melikevich. Types of prostheses that restore the anatomical shape of teeth.

**2 - topic.** Examination methods for tooth crown erosion. Preparation of the oral cavity for orthopedic restoration of crown defects. Classification of inlays. Veneers. Preparation criteria for inlays and veneers, features of clinical and laboratory stages.

**3 - topic.** Indications for treating crown defects with artificial crowns. Types of artificial crowns. Clinical requirements for artificial crowns. Rules for preparing hard tooth tissue for various crowns. Clinical and laboratory stages of various crown types. The importance of artificial intelligence in the production of modern artificial crowns. Possible errors and shortcomings in the manufacture of artificial crowns, resulting complications, and their elimination.

**4 - topic.** Clinical presentation of complete crown loss and indications for prosthetic treatment. Classification of post and core restorations. Preparation of the gingival area and root canal, requirements for roots. Dental prostheses used for complete crown loss in single-rooted and multi-rooted teeth with parallel and non-parallel canals. Post and core restorations according to Kopeykin and Bekmetov, "post and core within a core," "post and core with main guide channel" and others.

**Topic 5.** Possible errors and shortcomings in the manufacture of artificial crowns, inlays, veneers, and post and core restorations, resulting complications, and their elimination.

#### 6th semester.

**Topic 1.** Classification of partial defects in dental arches and their clinical conditions. Division of the dental arch into groups of independently functioning teeth. Functional load on the periodontium. Deformation of dental arches. Disruption of aesthetic norms, speech, and chewing functions. Special preparation (therapeutic, surgical, orthopedic, orthodontic) for prosthetic treatment of partial dental defects in the oral cavity. Methods for correcting occlusal disorders in secondary deformation of dental arches.

**Topic 2.** Selection of abutment teeth for the fabrication of bridge prostheses. Odontoparodontogram. Formulation of diagnosis. Determination of types of supporting parts and pontics (body) of bridge prostheses.

**Topic 3.** Methods for determining centric occlusion in various groups of partial dental arch defects. Face bow.

**Topic 4.** Clinical and laboratory stages of fabricating soldered and cast bridge prostheses. The concept of parallelometry. Aesthetic bridge prostheses: zirconia, glass-ceramic, and combined bridge prostheses. Delivery of bridge prostheses. Errors and complications in the fabrication of bridge prostheses and their resolution. Use of endosseous implants for fixing fixed prostheses.

### III. Instructions and recommendations for practical exercises.

The following topics are recommended for practical exercises:

#### 5th semester

**Topic 1.** Defects of the tooth crown, their classification. Melikevich Index (TChYuPI). Types of inlays. Principles of cavity preparation for inlays, considering the influence of chewing forces. Methods and sequence of preparation.

**Topic 2.** Clinical and laboratory stages of metal inlay fabrication. Direct and indirect methods of inlay preparation. Comparative features of both methods.

**Topic 3.** Clinical and laboratory stages of manufacturing inlays from porcelain, opaque composite materials, plastics, as well as combined inlays. Comparison of aesthetic inlays with fillings. Features of veneer preparation, production stages. Raw materials used.

**Topic 4.** Indications for treating tooth crown defects with artificial crowns. Types of artificial crowns. Clinical requirements for artificial crowns. General clinical and laboratory stages of artificial crown production.

**Topic 5.** Indications and contraindications for metal stamped crowns. Criteria for proper tooth preparation for an artificial crown made by metal stamping method. Clinical and laboratory stages of stamped crowns. Types of crown stamping (external, combined stamping). Laboratory lesson.

**Topic 6.** Clinical and laboratory stages of preparing solid cast crowns. Tooth preparation for solid cast crowns. Replacing wax with metal.

**Topic 7.** Specific aspects of impression taking. Morphology of the gingival sulcus, the concept of "gingival pocket." Methods of "opening" the gingival sulcus, removing the formed shoulder. Methods of taking a double-layer impression. Features of tooth preparation for metal-ceramic and metal-plastic restorations. Shoulder designs, their position relative to the gingiva. Shoulder formation for combined crowns.

**Topic 8.** Tooth preparation for porcelain crowns. Rules for layering porcelain. Characteristics of laboratory stages in preparing press-ceramic crowns. Clinical and laboratory stages of preparing zirconia and plastic crowns. The importance of artificial intelligence in the preparation of zirconia crowns. Features of color selection for aesthetic crowns. Laboratory lesson.

**Topic 9.** Try-in of crowns on prepared natural teeth in the mouth. Requirements for properly prepared crowns. Final processing of metal and aesthetic crowns. Assessment of the quality of crown polishing. Cementing metal and other types of crowns and patient instructions. Errors and shortcomings that may occur during the clinical and laboratory stages of preparing inlays and crowns, as well as their resulting complications.

**Topic 10.** Clinical features of the oral cavity when the tooth crown is completely lost, types of prosthetics. Requirements for roots. Classification of post and core structures. Restoration with cast post and core structures. Kopeykin's method of preparing post and core teeth for single and double-rooted parallel canals. Direct and indirect methods of fabricating post and core tooth structures. Laboratory lesson.

**Topic 11.** Methods of fabricating post and core structures for multi-rooted teeth with non-parallel canals: Bekmetov's post and core tooth, "post within a post," "post and core tooth with main guiding canal," and others. Laboratory lesson.

**Topic 12.** Types of prefabricated posts. Direct method of fabricating cast post and core structures using prefabricated anchor posts and composites for multi-rooted teeth with non-parallel canals. Possible errors and shortcomings in the clinical and laboratory stages of fabricating post and core structures, as well as resulting complications.

#### 6th semester.

**Topic 1.** Classification of partial defects of the dental arch and its clinical condition. Division of the dental arch into groups of independently functioning teeth. Development of functional and non-functional groups of teeth. Functional load on the periodontium. Deformation of dental arches. Disruption of aesthetic norms, speech, and masticatory functions. Changes in the temporomandibular joint associated with tooth loss.

**Topic 2.** Specialized preparation for prosthetics of partial defects of oral cavity teeth (therapeutic, surgical, orthopedic, orthodontic). Leveling the occlusal surface by increasing the interalveolar height. Smoothing the occlusal surface by shortening the teeth. Methods for correcting occlusal disorders in dental arch deformations.

**Topic 3.** Selection of abutment teeth for the fabrication of bridge prostheses. Clinical and theoretical calculation for determining the number of abutment teeth during treatment with bridge prostheses (7 principles). Odontoparodontogram.

**Topic 4.** Determining central occlusion. Identification of central occlusion in groups 1-3 of partial dental defects and the dentist's tactics with various devices for central occlusion of the remaining teeth.

**Topic 5.** Clinical and laboratory stages of fabricating soldered bridge prostheses. Types of bridge prosthesis pontics and the specifics of their application.

**Topic 6.** Methods of preparing combined models. Printing models using a 3D printer.

**Topic 7.** Orthopedic treatment of partial tooth defects with cast bridge prostheses. The concept of parallelometry. Clinical and laboratory stages of fabricating cast bridge prostheses.

**Topic 8.** Clinical and laboratory stages of manufacturing combined bridge prostheses (metal-porcelain, metal-plastic, zirconium dioxide-porcelain). Gradual application of porcelain mass to the metal framework. Pressing plastic onto the metal framework. Selecting the color of the coating material.

**Topic 9.** Indications for press-ceramic, zirconium dioxide, and composite bridge prostheses; characteristics of their clinical and laboratory stages. The role of artificial intelligence in the preparation of zirconium dioxide bridge prosthetics. The final laboratory stage: color adjustment, glazing, processing, and fixing. Cementing of bridge prostheses.

**Topic 10.** Types of implantation. Use of endosseous implants for fixing non-removable prostheses. Types, classifications, and components of implants.

**Topic 11.** Specific features of the clinical and laboratory stages of bridge prostheses supported by dental implants. Methods of taking impressions from dental implants.

**Topic 12.** Delivery of bridge prostheses. Errors (technical, clinical) and complications in the fabrication of bridge prostheses, their elimination. Correction of occlusal relationships. Preventive methods.

Practical classes should be conducted by one professor-teacher for one academic group in an auditorium equipped with multimedia devices. It is necessary for the classes to be conducted by one professor-teacher for one academic group. It is advisable to conduct classes using active and interactive methods, applying appropriate pedagogical and information technologies accordingly.

#### IV. Independent Study and Independent Work.

Recommended topics for independent study:

##### 5th semester.

1. Methods for determining the Melikovich index. Comparative assessment of tooth defect restoration using composites and inlays.
2. Shaping the inlay from wax on the model.
3. Veneers and lamineers. Their description, classification, and application. Peculiarities of tooth preparation for veneers.
4. Types of artificial crowns and comparative characteristics of materials used for their fabrication.

5. Comparative characteristics of cast and pressed metal artificial crowns and differences in their clinical and laboratory stages.

6. Shaping artificial crowns from wax on a model. Methods and criteria for tooth preparation for artificial crowns. Effect of tooth hard tissue preparation on periodontal issues.

7. Morphology of the gingival sulcus, concepts of "gingival pocket" and "gingival groove". Retraction methods, techniques for creating a finish line in the cervical region of the tooth. Types of finish lines.

8. CAD-CAM technology, its development, advantages and disadvantages compared to the traditional method.

9. Errors and shortcomings that can occur during the clinical and laboratory stages of preparing inlays and crowns, as well as resulting complications. Their prevention.

10. Classification of partial damage to the tooth crown. Its etiology, pathogenesis, and clinical presentation. Functional characteristics of anterior incisors and posterior teeth.

11. Methods of preparing post and core restorations for single and multi-rooted canals.

12. Comparative characteristics of standard and custom-made core structures. Psychotherapeutic preparation of patients before orthopedic dental procedures.

##### 6th semester.

1. Disruption of aesthetic norms and functions associated with tooth loss, as well as functional changes in the periodontium and temporomandibular joint.

2. Special preparation using modern methods for restoring partial defects of dental rows in the oral cavity using bridge prostheses.

3. Components and classifications of bridge prostheses. Selection of abutment teeth for the fabrication of bridge prostheses.

4. Instrumental methods for determining the lower 1/3 of the face. Working with the face bow.

5. Comparative characteristics of materials used for the fabrication of bridge prostheses.

6. Methods of preparing combined models and rules for mounting them on the articulator.

7. Methods of fabricating metal bridge prostheses and their comparative evaluation. Types of parallelometers.

8. Criteria and methods for selecting tooth shade for aesthetic prostheses.

9. Specific features of fabricating aesthetic bridge prostheses.

10. Use of endosseous implants for fixing non-removable prostheses. Types, classifications, and components of dental implants.

11. Specific features of clinical and laboratory stages of bridge prostheses supported by dental implants. Methods of taking impressions from dental implants.

12. Methods of correcting occlusion in the final stage of fabricating aesthetic dental prostheses.

Independent work for the module (course) "Faculty Orthopedic Dentistry 1" is conducted both in the classroom and outside the classroom.

The following forms are used when organizing students' independent work:

- Performing approved practical skills quantitatively and qualitatively in training, model, and simulation rooms/centers under pedagogical supervision outside of classroom sessions and recording them in practical skills acquisition logbooks.

- Independent work for the module on propaedeutics of orthopedic dentistry is carried out both in the classroom and outside the classroom.

- The following forms are used when organizing students' independent work:

- Working with computers, models, phantoms, and other simulations;

- Patient curation, preventive examinations, writing medical histories;

- Quantitative and qualitative performance of approved practical skills during extracurricular clinical duties in dental clinics and clinical training facilities under the supervision of the duty physician-instructor and recording them in duty logbooks;

- Participation of students in olympiads, competitions, exhibitions, conferences, and other events for active assimilation of the subject;

- Quantitative and qualitative completion of laboratory stages for the dental prosthesis being studied in the dental laboratory, shaping the crown portion of teeth from wax on the model;

- Performing approved practical skills quantitatively and qualitatively under teacher supervision in training rooms, with models and simulators, in addition to classroom sessions, and recording these in practical skills acquisition notebooks;

- Independent mastery of certain theoretical topics using educational literature;

- Preparing reports (abstracts) on given topics;

- Studying specific sections or topics of the module using specialized or scientific literature (monographs, articles) and delivering presentations;

- Solving case-based problems focused on situational and clinical issues;

- Solving CASE studies (based on real clinical situations and clinical case problems);

- Creating models, compiling crosswords, developing organizers, etc.;

For independent work, students can use the following as information sources: textbooks and teaching materials, methodological manuals and guidelines, data collections and banks, scientific and popular periodicals, relevant information on the

Internet, a repository of previously completed works on the given topic, and other resources.

The objectives of the student's independent work are as follows:

- To acquire skills for thorough independent mastery of new knowledge;

- To identify convenient methods and means of searching for necessary information;

- To efficiently use information sources and resources;

- To work with traditional educational and scientific literature and databases;

- To use the Internet purposefully;

- Determine the rational solution for the given task;

- Analyze the database;

- Prepare work results for expert review and revise based on expert opinion;

- Apply a systematic and creative approach to completing tasks;

- Possess skills for independent problem-solving;

- Justify and defend the developed solution, project, or idea within a team of specialists.

#### V. Learning Outcomes/Professional Competencies

*Requirements for students' knowledge, skills, and abilities in the module (subject):*

**5th semester.**

**Student:**

- Types of artificial dental crowns;

- Main and auxiliary raw materials used in the manufacture of various dental crowns;

- Types of crown fabrication (external, combined stamping);

- Clinical and laboratory stages of various dental crowns;

- Shapes of tooth preparation, its position relative to the gum;

- Requirements for properly prepared dental crowns;

- Morphology of the gingival sulcus, the concept of "gingival pocket";

- Requirements for tooth roots;

- Classification of post-core dental prostheses;

- Types of standard posts *should have an understanding of*;

- Tools used for tooth preparation *should be able to use*;

- Methods of gingival retraction;

- Cementation of metal and other types of dental crowns;

- Preparation of the gingival area and root canal *must have practical skills in*

#### 6th semester.

##### Student:

- Classification of partial edentulism.
- Special preparation for prosthetic treatment of partial tooth loss in the oral cavity.
- components and classifications of bridge prostheses.

-concept of parallelometry.

-clinical and laboratory stages of various bridge prostheses.

**have an understanding of implant types :**

**be able to use combined models;**

-selection of abutment teeth for the fabrication of bridge prostheses.

-determination of centric occlusion in groups 1-3 of partial tooth defects.

**have practical skills in correcting occlusal relationships.**

**List of practical skills to be acquired during the module:**

During clinical practice in the faculty orthopedic dentistry module, students are expected to master the following practical skills:

##### 5th semester.

1) Wax modeling of anatomical shapes of upper and lower jaw teeth.

2) Taking impressions using alginate impression material.

3) Taking impressions using silicone impression material.

4) Pouring plaster models.

5) Preparing tooth structure for pressed crowns.

6) Preparing tooth structure for metal-ceramic crowns.

7) Preparing tooth structure for zirconia crowns.

8) Ability to cement crowns.

9) Taking impressions from the root canal for post and core restorations.

10) Ability to cement post and core restorations in the root canal.

##### 6th semester

1) Pouring combined models.

2) Completing odontoparodontograms

3) Ability to examine the metal framework of metal-ceramic bridge prostheses in the oral cavity.

4) Gingival retraction.

5) Ability to take open-tray impressions for implants.

6) Ability to take impressions from implants using the closed tray technique.

7) Ability to cement-retain bridge prostheses.

8) Ability to determine central occlusion in the first group of dental arch defects.

#### Competencies acquired during the module

##### General competencies (GC)

GC 1. Ability to think abstractly, analyze and synthesize phenomena.

GC 2. Ability to use the foundations of philosophical knowledge to form a worldview.

GC 3. Ability to act in non-standard situations, readiness to take social and ethical responsibility for decisions made.

GC 4. Readiness for self-development, self-awareness, learning and utilization of creative potential.

GC 5. Readiness to apply first aid techniques and protective measures in emergency situations.

GC 6. Readiness to apply first aid techniques and protective measures in emergency situations.

GCC 1. Readiness to solve standard tasks of professional activity, taking into account the basic requirements of information, bibliographic sources, biomedical terminology, information and communication technologies, and information security.

##### Professional competencies (PC):

PC 9. Preparation of Class I - V carious cavities on phantom models.

PC 42. Differentiation of hand instruments used for root canal enlargement.

PC 120. Fabrication of stamped crowns.

PC 121. Fabrication of cast crowns.

PC 124. Performing occlusal analysis on patients.

PC 125. Two-layer impression technique.

UKK 128. Preparation of a cast core structure using the direct method.

UKK 129. Method of inspection using an artificial coating.

UKK 130. Measuring the framework of a bridge prosthesis.

UKK 133. Preparation of pressed crowns.

UKK 134. Preparation of the wax pattern for a cast bridge prosthesis.

UKK 135. Preparation of the wax pattern for a cast post.

UKK 137. Non-injection anesthesia in dentistry.

UKK 138. Performing topical anesthesia.

##### VI. Educational technologies and methods:

- Lectures.
- Group work.
- Preparing presentations.
- Individual projects.
- Team projects and their defense.
- Role-playing games, discussions.

##### VII. Requirements for students to obtain credits:

Students must complete the tasks and assignments given as part of ongoing and interim assessments, answer oral questions in the final assessment, and demonstrate practical skills.

**VIII. Guidelines for conducting types of assessment.**

**ONGOING ASSESSMENT (OA)**

The ongoing assessment aims to determine and evaluate the student's level of knowledge, practical skills, and competencies on the module topics. For the "Faculty Orthopedic Dentistry 1" module, OA can be conducted through oral examinations, instructor-guided tests, work with handouts, case studies, working with models and phantoms, patient interactions, checking homework assignments, and other similar forms.

The assessment takes into account the student's level of knowledge, mastery of practical training materials, degree of active participation in discussions of theoretical material and interactive teaching methods, as well as the level of acquisition of practical knowledge and skills, and development of competencies (i.e., theoretical, analytical, and practical approaches).

All students must be assessed in each class. The maximum score is 100, with a passing score of 60.

The 4.0 credits allocated for ongoing assessment are distributed as follows:

Clinical and laboratory stages of artificial crown preparation - 2 credits,

Clinical and laboratory stages of post and core preparation - 2 credits.

The student is admitted to the final assessment only after accumulating the assigned credits from each section.

A student who scored below the passing score in the ongoing assessment or was unable to participate in the assessments for valid reasons is given a period until the next assessment of the same type, or until the final assessment for the last ongoing assessment, to retake it.

Students who did not attend classes due to illness and could not complete the ongoing assessment within the established timeframes are allowed to take it within two weeks after resuming their studies, based on the order of the faculty dean.

At the end of the semester, a student who scored below the passing score in the ongoing assessment for the module is considered to have an academic debt.

Academically indebted students are given one month after the end of the semester for re-mastery. A student who fails to master the module during this period, upon the recommendation of the faculty dean, is held back a year by order of the rector in the prescribed manner.

Grading scale	Description
<i>Achieved</i>	100%- Fully understands the competency, can perform it sequentially can fully execute, thoroughly explaining the essence can explain
<i>Not achieved</i>	50%- does not understand the competency, cannot perform it sequentially, cannot explain its essence

**Student Independent Work Assessment Table**

Student Independent Work with Teacher Guidance (SIWT) (Office hours) is a type of independent study in the credit education system conducted in the classroom. It is carried out as a lesson for students in the 2nd and 3rd years. It has two functions - consultation and control. **Consultation function:** It is designed to provide appropriate pedagogical assistance to students in their independent work for each subject included in the experimental working curriculum.

It helps the student choose the necessary working methods for mastering the program material. It creates an opportunity for the student to listen again to the explanation of a difficult topic and to perform practical tasks to reinforce the educational material.

- It helps in the in-depth study of educational material. Usually, it is devoted to a specific topic that students need to prepare for in advance.
- It contributes to deepening the student's independent work in their scientific field of greatest interest.

**Control function:**

- Current assessment of student knowledge. During the same lesson, the student submits control topics and tasks for SIWT as provided for in the program.
- There is a real opportunity to accumulate the necessary (missing) points to obtain a high grade.

Classes at Higher Education Institutions (HEIs) are conducted according to the schedule, but this is not mandatory for students who can work independently. Therefore, one of the teacher's important tasks is to continuously monitor each student's academic progress and provide guidance to ensure that all students successfully master the course material and pass the final exam.

**In the class register, the student's attendance is recorded on a separate page using "+" for present or "a/b" for absent.**

Student Independent Work (SIW) is carried out based on a calendar-thematic plan. The department has designated several types of independent work, as described in the SIW section above. For each topic, students are offered the opportunity to choose up to 12 tasks. Students can select 1 task per credit. To assist students, the department has developed guidelines (methodological recommendations) for implementing each form of SIW. To maximize the objectivity of SIW assessment,

evaluation criteria (100 points for each SIW) have been developed as described in the curriculum. The deadline for submitting SIW (situational tasks, diagnostic algorithms, treatment schemes, etc.) is set according to the thematic plan (on the day the topic is analyzed). A student who has not submitted the SIW is considered to have not fully completed the credit for the course.

In the TMI section of the educational journal, the assessment score is entered in the following order: the numerator shows the score obtained, while the denominator indicates the number of the submitted independent work topic.

Grading System	Numerical equivalent	Score	Traditional grading system
A	5	100	Excellent
		90-94	
B	4	85-89.9	Good
		80-84	
		75-79	
C		70-74	
D	3	65-69.9	Satisfactory
E		60-64	
FX	2	55-59.9	Unsatisfactory
F		50-54	
		0-49	

#### FINAL ASSESSMENT (FA)

A student who has fully accumulated the credits allocated to the CM and has passed the IA is admitted to the FA. FA is conducted at the end of the module in the form of OSCE + test. This assesses students' competencies, practical skills, and theoretical knowledge. The OSCE has 8 stations, including 7 questions and 1 practical skill. Each question is worth 12 points, and the practical skill is worth 16 points. The maximum score is 100, with a passing score of 60. A student who fails to score the qualifying score (60) in FA is considered to have failed the FA and not mastered the module (even if they have accumulated full credits in CM and passed the IA).

The process of conducting the final assessment is periodically reviewed by a commission formed by order of the rector of the educational institution under the leadership of the Department of Internal Control and Monitoring. If violations in the assessment procedure are found, the results of the final assessment are canceled, and it is conducted again.

Students who could not take the final assessment due to illness are allowed to take it within two weeks after resuming their studies, based on the order of the faculty dean.

At the end of the semester, a student who scored less than the passing score in the final assessment is considered to have an academic debt.

Students with academic debt are given one month after the end of the semester for remediation. A student who fails to master the module during this period, upon the recommendation of the faculty dean, is held back from progressing to the next course by order of the rector in the prescribed manner.

If a student is dissatisfied with the assessment results, they can submit an application to the Dean of the Faculty within one day of the announcement of the module assessment results. In such cases, an appeals commission consisting of at least 3 (three) members is formed by order of the rector upon the recommendation of the Dean of the Faculty.

The Appeals Commission reviews the students' applications and issues its conclusion on the same day.

The conduct and documentation of the assessment within the established timeframe based on set requirements are monitored by the faculty dean, department head, academic department, and internal control and monitoring department.

During distance learning, final and interim assessments can be conducted in the form of online tests.

#### IX. Main and additional educational literature and information sources

##### 9.1. Main Literature

- 1) Akbarov A.N., Khabilov N.L., Arslanov O.U., Usmonov F.K., Ziyadullaeva N.S. Fixed Dental Prosthetics, Textbook. Tashkent, 2018.
- 2) Akbarov A.N., Khabilov N.L., Arslanov O.U., Usmonov F.K., Ziyadullaeva N.S. Prosthetics with Fixed Dental Prosthesis, Textbook. Tashkent. 2018.
- 3) Irsaliev Kh.I., Rakhmonov Kh.Sh., Khabilov N.L., Safarov M.T., Rakhmatullaev F.T. Propeudeutics of Orthopedic Dentistry, Textbook. Tashkent. 2006.
- 4) Irsaliev Kh.I., Nigmatov R.N., Khabilov N.L. Orthopedic Dentistry, Textbook. Tashkent. 2011.

##### 9.2. Additional Literature

1. Paraskevich V.L. Dental Implantology, Study Guide. Kazan. 2006.
2. Herbert Shillingburg. Fundamentals of Fixed Prosthodontics. USA. 2012.
3. Abolmasov N.G., Abolmasov N.N., Bychkov V.A., Al-Hakim A. Orthopedic Dentistry, Textbook. Moscow. 2011.
4. Gurel G. Ceramic Veneers. Moscow. Dentist's ABC, 2007.
5. Zhulev E.N. Clinical Diagnosis and Orthopedic Treatment of Periodontal Diseases. Study Guide. N. Novgorod. 2003.
6. Iordanishvili A.K. Clinical Orthopedic Dentistry. Textbook. Moscow. 2007.

7. Lebedenko I.Yu., Erigeva V.V., Markova B.P. Guide to Practical Classes in Orthopedic Dentistry. Moscow. 2007.
8. Lebedenko I.Yu., Kalamkarova S.Kh. Orthopedic Dentistry: Algorithms for Diagnosis and Treatment. Study Guide. Moscow. 2008.
9. A.I. Abdurakhmanov, O.R. Kurbanov. Materials and Technologies in Orthopedic Dentistry. Study Guide. Moscow. 2008.
10. I.V. Aristarkhov. Orthopedic Dentistry. Textbook. Moscow. 2006.
11. E.N. Zhulev, N.V. Kuryakina, N.E. Mitin. Orthopedic Dentistry. Phantom Course. Moscow. 2011.
12. Kh. A. Kalamkarov. Selected Lectures on Orthopedic Dentistry. Moscow. 2007.
13. Lectures on Orthopedic Dentistry. Edited by T.I. Ibragimov. Moscow. 2010.
14. Orthopedic Dentistry. Edited by V.N. Kopeykin, M.Z. Mirgazitov. Moscow. 2001.
15. V.N. Trezubov et al. Orthopedic Dentistry. Moscow. 2010.
16. V.N. Trezubov et al. Orthopedic Dentistry. Applied Materials Science. Textbook. Moscow. 2014.
17. V.N. Trezubov, A.S. Shcherbakov, L.M. Mishnev. Orthopedic Dentistry. Propaedeutics and Fundamentals of the Specialized Course. Textbook. Moscow. 2014.

### 5.3. Internet sites

1. <http://www.ziynet.uz>
2. <http://www.edu.uz>
3. <http://www.pedagog.uz>
4. <http://www.tdsi.uz>
5. <http://www.lex.uz>
6. <http://www.dental.md>
7. <http://www.stomatolog.ru>
8. <http://www.newdent.ru>
9. <http://www.dentist.ru>
10. <http://www.dentoday.ru>

Developed and approved at Tashkent State Medical University.

Vice-Rector for Academic Affairs \_\_\_\_\_

Banno of the Academic Council of the University No. \_\_\_\_\_ 2025

### Responsible for discipline/module:

A.N. Akbarov - Head of the Department of "Faculty Orthopedic Stomatology" of TSMU, Doctor of Medical Sciences, Professor.

N.S. Ziyadullaeva - Professor of the Department of "Faculty Orthopedic Stomatology" of TSMU, Doctor of Medical Sciences, Associate Professor

N.R. Nigmatova - Associate Professor of the Department of "Faculty Orthopedic Stomatology" of TSMU

### Reviewers:

A.A. Akhmedov - Head of the Department of Orthopedic Stomatology and Orthodontics of SamSMU, Doctor of Medical Sciences, Associate Professor.

N.M. Aliyeva - Associate Professor of the Department of Propaedeutics of Orthopedic Stomatology, TSMU, Candidate of Medical Sciences

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