

REPUBLIC OF UZBEKISTAN  
MINISTRY OF HIGHER EDUCATION, SCIENCE AND INNOVATION

TASHKENT STATE MEDICAL UNIVERSITY



**FACULTY OF ORTHOPEDIC DENTISTRY-2**  
**(module) CURRICULUM**

**Field of Knowledge:** 900000 - Health Care and Social Security  
**Field of Education:** 910000 - Health Care  
**Educational Direction:** 60910100 - Dentistry (*by specializations*)

**Tashkent - 2025**

<b>Subject/Module Code</b> FOS21676		<b>Academic Year</b> 2025-2026	<b>Semester</b> 7	<b>Credits</b> 3 (7th semester)
<b>Subject/Module Type</b> Mandatory		<b>Language of Instruction</b> Uzbek/Russian		<b>Class Hours per Week</b> 3
<b>1.</b>	<b>Subject Name</b>	<b>Classroom Sessions (hours)</b>	<b>Independent Study (hours)</b>	<b>Total Workload (hours)</b>
	FOS2	45 (7th semester)	45 (7th semester)	90 (7th semester)

**2. I. Subject Content**

The purpose of teaching this subject is to develop and shape students' clinical thinking abilities through modern pedagogical technologies, focusing on the causes, developmental mechanisms, clinical presentations, diagnostic and differential diagnostic methods, treatment approaches, and preventive measures for dental hard tissue defects and dental arch abnormalities.

Objectives of the course: to gradually introduce students to the knowledge related to the sections of the discipline, teach and develop skills; to implement new pedagogical technologies in the learning process, develop students' clinical thinking abilities and increase their knowledge retention; to bring practical skills aimed at developing students' clinical thinking to the level of automatism using assistant-student and student-phantom methods in accordance with the standard; to provide information on the stages of diagnosis and differential diagnosis of tooth hard tissue and dental arch defects related to the field, as well as essential 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:**

**7th semester**

**1-Topic 1.** Methods of examining patients with partial dentition. Use of intraoral scanners for prosthetic treatment of dental arches with removable partial dentures. Classifications of partial dental arch defects. Applegate's rules. Requirements for

abutment teeth. Preparation of abutment teeth for treatment with a removable partial denture. Indications for removable partial dentures, their components. Use of artificial intelligence in planning removable partial dentures, taking into account individual anatomical parameters of patients. Major connectors of removable partial dentures. Minor connectors. Their functions and types.

**Topic 2.** Clasps (direct retainers), their types and functions. Components of clasps. Requirements for clasps. Attachments. Their types. Other types of retentive elements for removable partial dentures. Use of CAD/CAM systems in the fabrication of removable partial denture components.

**Topic 3.** Clinical and laboratory stages of fabricating clasp-retained and attachment-retained removable partial dentures. Making impressions, determining centric relation and vertical dimension of occlusion.

**Topic 4.** Intraoral try-in of the framework of the removable partial denture. Errors and complications encountered during the fabrication of removable partial dentures, their prevention and management. Concepts of relining and rebasing.

**Topic 5.** Preparation of arch prostheses from modern raw materials (valplast, cadotti). Their advantages and disadvantages. Using 3D printing in the manufacture of arch prostheses.

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

**The following topics are recommended for practical exercises:**

**7th Semester**

**Topic 1.** Treatment of partial defects of the dental arch with bugel (arc) prostheses. Indications for bugel prostheses, their components. Clinical and laboratory stages of arch prostheses. Requirements for abutment teeth. Preparation of the abutment teeth for treatment with a bugel prosthesis. Indications for crowning abutment teeth. Parallelometry.

**Topic 2.** Arches of bugel prostheses (major connectors). Major connectors used in the upper and lower jaws. Requirements for them. Minor connectors. Their functions and types. Preparation of refractory models, casting of the arch of bugel prostheses.

**Topic 3.** Clasps (direct retainers), their types, functions. Components of clasps. Requirements for clasps. Raw materials for clasps. Equator and survey line of the tooth crown. Undercut line. Retentive clasps, types of retentive parts. (According to McCracken's). Ney system clasps.

**Topic 4.** Attachments. Their types. Other types of fixing elements for arch prostheses (bar attachments, telescopic systems, etc.).

**Topic 5.** Examining the arch of the bugel prosthesis in the mouth, eliminating errors and shortcomings. Base (saddle part) of the arch prosthesis. Arrangement of artificial teeth. Final processing of the finished arch prosthesis. Polymerization. Adapting the finished bugel prosthesis to the patient's dental arch and delivering it

to the patient. Rules for using bugeal prostheses.

**Topic 6.** Preparation of arch prostheses from modern materials (valplast, cadotti). Their advantages and disadvantages. Clinical and laboratory stages. Errors and shortcomings encountered during the stages of manufacturing arch prostheses. Preventing them. Concepts of rebasing and relining.

Practical classes **should be conducted by one professor-teacher for one academic group** in an auditorium equipped with multimedia devices. Classes should be conducted using active and interactive methods, applying appropriate pedagogical and information technologies.

#### IV. Independent study and independent work.

Recommended topics for independent study:

##### 7th semester

1. Types of materials used for the manufacture of arch prostheses.
2. Parallelometry. Types of parallelometers.
3. Types of attachments.
4. Types of clasps used for arch prostheses.
5. Criteria for selecting the shape of the arch.
6. Specific aspects of manufacturing arch prostheses supported by dental implants.
7. Errors and shortcomings in the manufacture of arch prostheses and their elimination

#### The following forms are used when organizing student independent work:

- Performing approved practical skills quantitatively and qualitatively under teacher supervision in training rooms, mock-up facilities, and simulation centers/halls outside of classroom sessions, and recording these in practical skills mastery notebooks;
- Performing approved practical skills quantitatively and qualitatively under the supervision of an on-duty physician-teacher during extracurricular clinical duty at medical university clinics and clinical training bases, and recording these in duty logbooks;
- Participating in patient care alongside the attending or on-duty nurse;
- Conducting conversations and lectures on health education among the public;
- Independently mastering certain theoretical topics using educational literature;
- Preparing reports (abstracts) on given topics;
- Working on module sections or topics using specialized or scientific literature (monographs, articles) and giving presentations.

- Solving case-based problems focused on situational and clinical issues;
- Creating models, composing crosswords, developing organizers, etc.

#### 3. V. Learning Outcomes/Professional Competencies

The student must know:

By the end of the 7th semester

The student:

- Should have an understanding of the supporting and retaining parts of partially removable prostheses, and conditionally removable prostheses supported by implants; (knowledge).
- Know parallelometry, types of raw materials used for partially removable dentures, **and be able to use them.** (skill)
- Determine the occlusal height and central occlusion when the lower facial height is reduced. **Possess skills (including clinical and practical skills) in this area.**

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

7th semester

- 1) Drawing the boundaries of arch-shaped dentures on upper and lower jaw models
- 2) Determining the shade of artificial teeth
- 3) Determining central occlusion in partial dental arch defects using wax bases and wax rims

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

- Lectures;
  - Interactive case studies;
  - Group work;
  - Preparation of presentations;
  - Individual projects;
  - Team projects and defense;
  - Role-playing games, debates.
- UK 1. Ability to think abstractly, analyze and synthesize phenomena;
- UK 2. Ability to use fundamental philosophical knowledge to form a worldview;
- UK 3. Ability to act in non-standard situations, readiness to assume social and ethical responsibility for decisions made;
- UK 4. Readiness for self-development, self-awareness, learning, and utilization of creative potential;
- UK 5. Readiness to apply first aid techniques and protective measures in emergency situations.

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

GC 2. Readiness to communicate orally and in writing in Russian and foreign languages to solve problems in professional activities;

*must possess these competencies*

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

They must complete the tasks and assignments given in the current assessment form, answer oral questions in the final assessment, and demonstrate practical skills.

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

##### CURRENT ASSESSMENT (CA)

Current assessment aims to determine and evaluate the student's level of mastery of knowledge, practical skills, and competencies on the module topics. For the Orthopedic Dentistry-1 module, CA can be conducted in various forms such as oral questioning, training and control tests, working with handouts, solving case studies, working with models and phantoms, interacting with patients, checking homework assignments, and other similar methods.

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 competency development (i.e., theoretical, analytical, and practical approaches).

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

Students who have received a positive grade (**60 points and above**) in all classroom and extracurricular activities (on MOODLE and HEMIS platforms) on the topics specified in the module curriculum are permitted to take the final assessment.

In classroom and extracurricular activities (on MOODLE and HEMIS platforms), all students in the group are evaluated on two separate pages of a single journal for each lesson.

Students who miss 25% or more of the classroom or extracurricular activities allocated for the semester (on MOODLE and HEMIS platforms) without valid reasons will be excluded from classes and will not be allowed to take the final assessment.

Students who have missed at least two or more of the classroom or extracurricular sessions allocated for the semester (on the MOODLE platform) due

to valid reasons are allowed to make up the missed sessions before the end of the semester with permission from the dean's office. The deadline for making up missed sessions should be set before the week of the final assessment (OSCE) exams.

Students who have not received a positive grade (**60 points and above**) in all classroom and extracurricular activities (on MOODLE and HEMIS platforms) on the topics specified in the module curriculum are **not permitted** to take the final assessment tests.

A student who does not achieve a final positive result in the module at the end of the semester is considered to have an academic debt and is not awarded credit.

#### 5.2. Criteria for monitoring the acquisition of practical skills and assessing students' knowledge in the subject/module

Assessment scale	Description
<b>Mastered</b>	100% - Fully knows the competency, can perform it sequentially, can fully execute, fully explaining the essence, can explain
<b>Not mastered</b>	50% - doesn't know the competency, can't perform it sequentially, can't explain its essence

Student rating for the module (subject) is determined as follows:

Score	ECTS grade	ECTS Definition	Grade	Definition
90-100	A	"excellent" - excellent result, with minimal errors	5	excellent
		Possesses systematic, complete, and in-depth knowledge of all sections of the subject/module program, able to substantiate it with necessary arguments; Clear and appropriate use of terminology (including scientific and foreign language terms), logically correct and stylistically literate expression of answers to questions; Ability to identify problematic questions and substantiate one's views using scientific and practical language; Knowledge of the fundamental		

			<p>concepts of the subject/module and the ability to effectively apply them in solving scientific and practical problems in a short time;</p> <p>Ability to demonstrate independent and creative problem-solving skills in non-standard situations;</p> <p>Capability to independently and fully perform practical skills (in terms of both quality and required quantity) and fully master competencies;</p> <p>Ability to solve practical problems concisely, reasonably, and efficiently;</p> <p>Complete and in-depth mastery of both primary and supplementary literature recommended in the subject/module program;</p> <p>Understanding the essence of theories, concepts, and trends in the subject/module, critically evaluating them, and applying scientific achievements from other modules;</p> <p>Creative and independent participation in theoretical and practical classes throughout the semester, active involvement in group discussions, and demonstrating a high level of professionalism in completing tasks;</p>		
70-89.9	B	"very good" - above average result, with some minor errors	<p>Possession of systematic, comprehensive, and in-depth knowledge of all sections of the subject program, ability to substantiate it with necessary evidence;</p> <p>Clear and appropriate use of terminology (including scientific and foreign language terms), logically correct and stylistically literate expression of answers to questions;</p> <p>Ability to independently</p>	4	Good

			<p>eliminate ambiguities that arise when proving one's point or presenting other theoretical material;</p> <p>Knowledge of the fundamental concepts of the subject/module, and their effective use in setting and solving scientific and professional tasks in a short time;</p> <p>Ability to independently solve problems in standard situations within the framework of the curriculum;</p> <p>Ability to independently and fully perform practical skills (in terms of quality and specified quantity) and fully master competencies;</p> <p>Demonstrating good knowledge of regulatory legal documents in practical classes, the ability to correctly (but not always rationally) apply this knowledge in new situations, insufficient formalization of the results of the work performed;</p> <p>Mastery of the main literature recommended in the course/module program;</p> <p>Ability to understand the essence of theories, concepts, and directions in the studied module and critically evaluate them;</p> <p>Creative and independent participation in theoretical and practical classes throughout the semester, active involvement in group discussions, and displaying a very good level of culture in completing tasks;</p>		
60-69.9	C	"Satisfactory" - average result with significant	<p>Systematic, complete, and in-depth knowledge of all sections of the subject/module program, ability to substantiate with necessary evidence, but with minor shortcomings;</p> <p>Clear and appropriate use of terminology (including scientific</p>	3	satisfactory

			<p>concepts of the subject/module and the ability to effectively apply them in solving scientific and practical problems in a short time;</p> <p>Ability to demonstrate independent and creative problem-solving skills in non-standard situations;</p> <p>Capability to independently and fully perform practical skills (in terms of both quality and required quantity) and fully master competencies;</p> <p>Ability to solve practical problems concisely, reasonably, and efficiently;</p> <p>Complete and in-depth mastery of both primary and supplementary literature recommended in the subject/module program;</p> <p>Understanding the essence of theories, concepts, and trends in the subject/module, critically evaluating them, and applying scientific achievements from other modules;</p> <p>Creative and independent participation in theoretical and practical classes throughout the semester, active involvement in group discussions, and demonstrating a high level of professionalism in completing tasks;</p>		
70-89.9	B	"very good" - above average result, with some minor errors	<p>Possession of systematic, comprehensive, and in-depth knowledge of all sections of the subject program, ability to substantiate it with necessary evidence;</p> <p>Clear and appropriate use of terminology (including scientific and foreign language terms), logically correct and stylistically literate expression of answers to questions;</p> <p>Ability to independently</p>	4	Good

			<p>eliminate ambiguities that arise when proving one's point or presenting other theoretical material;</p> <p>Knowledge of the fundamental concepts of the subject/module, and their effective use in setting and solving scientific and professional tasks in a short time;</p> <p>Ability to independently solve problems in standard situations within the framework of the curriculum;</p> <p>Ability to independently and fully perform practical skills (in terms of quality and specified quantity) and fully master competencies;</p> <p>Demonstrating good knowledge of regulatory legal documents in practical classes, the ability to correctly (but not always rationally) apply this knowledge in new situations, insufficient formalization of the results of the work performed;</p> <p>Mastery of the main literature recommended in the course/module program;</p> <p>Ability to understand the essence of theories, concepts, and directions in the studied module and critically evaluate them;</p> <p>Creative and independent participation in theoretical and practical classes throughout the semester, active involvement in group discussions, and displaying a very good level of culture in completing tasks;</p>		
60-69.9	C	"Satisfactory" - average result with significant	<p>Systematic, complete, and in-depth knowledge of all sections of the subject/module program, ability to substantiate with necessary evidence, but with minor shortcomings;</p> <p>Clear and appropriate use of terminology (including scientific</p>	3	satisfactory

				<p>cant errors</p> <p>terms and in foreign languages), logically correct and stylistically literate expression of answers to questions;</p> <p>Ability to independently eliminate ambiguities that arise when proving one's point or presenting other theoretical material;</p> <p>Knowledge of the fundamental concepts of the subject/module, effective use of them in setting and solving scientific and professional tasks in a short time;</p> <p>Ability to independently solve problems in standard situations within the framework of the curriculum;</p> <p>Ability to independently perform practical skills (in terms of quality and established quantity) and acquire competencies, but with some minor shortcomings;</p> <p>Demonstrating good knowledge of regulatory legal documents in practical classes, ability to correctly (but not always efficiently) apply this knowledge in new situations, insufficient formalization of the results of the work performed;</p> <p>Mastery of the main literature recommended in the course/module program;</p> <p>Ability to understand the essence of theories, concepts, and directions in the studied module and critically evaluate them;</p> <p>Creative and independent participation in theoretical and practical classes throughout the semester, active involvement in group discussions, good level of task completion;</p>	
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	55-59	E	"unsatisfactory" - additional independent learning is required to obtain a minimum level of knowledge	<p>does not have a satisfactory level of knowledge within the framework of state educational standards (requirements);</p> <p>uses terminology, correctly describes answers to questions, but makes gross mistakes;</p> <p>demonstrates basic understanding of the subject/module when having difficulty answering or demonstrating certain special skills and making gross errors;</p> <p>masters competencies at an independent level but with errors;</p> <p>has partial knowledge of the general concepts of the subject module and is unable to apply it in solving standard (typical) situations;</p> <p>is able to solve standard situations with the help of a teacher;</p> <p>understands the essence of the main theories, concepts, and directions of the studied subject module, but is unable to evaluate them;</p>	2	unsatisfactory
	31-54	FX	"unsatisfactory"	<p>has only some fragmentary knowledge within the framework of state educational standards (requirements);</p> <p>cannot use scientific terms or makes serious logical errors in answering;</p> <p>participates passively in theoretical and practical classes and has a low level of task completion culture;</p> <p>does not possess practical skills and competencies, cannot correct their mistakes even with the help of recommendations from a teacher</p>	2	Unsatisfactory
	0-30	F	"absolutely unsatisfactory" -	<p>has only fragmentary knowledge within the framework of state educational standards (requirements);</p> <p>cannot use terms or makes serious</p>	2	Block without conditions

	must be fully mastered	and gross logical errors in answering, or does not answer at all; participates passively in theoretical and practical classes, has a low level of task completion culture or does not complete tasks at all; does not possess practical skills and competencies, cannot correct their mistakes even with the help of a teacher's recommendations.	tion
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### Student Independent Work Assessment Table

Student Independent Work with Teacher Guidance (SIWTG) (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 2nd and 3rd-year students in the classroom. It has two functions - consultation and supervision. **Consultation function:** It is designed to provide pedagogically appropriate assistance in students' 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.

- Helps in-depth study of educational material. Usually, it is devoted to a specific topic that students need to prepare for in advance.

- Contributes to deepening the student's independent work in their preferred scientific field.

#### Control function:

- Ongoing assessment of students' knowledge. During the same lesson, the student submits control topics and tasks for the ITMI as outlined in the program.

- There is a real opportunity to accumulate the necessary (missing) points to obtain a high grade.

ITMI is conducted during the lesson 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 lesson and pass the final exam.

**In the academic journal, the student's attendance is recorded on a separate page in the form of (+ or a/a).**

Student independent work (SIW) is carried out based on a calendar-thematic plan. The department has designated several types of independent work as

described above in the SIW section. 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 of the topic analysis). A student who has not submitted the SIW is considered to have not fully mastered the continuous assessment credit.

In the SIW section of the academic journal, the assessment score is entered as follows: the score obtained is written in the numerator, and the number of the submitted independent work topic is entered in the denominator.

### FINAL ASSESSMENT (FA)

The final score for the module is calculated in the following ratio:

Average current score from classroom activities	Average current score from activities outside the classroom (on Moodle platform)	Midterm Assessment (MA)	Score obtained from OSE tests
33.3%	33.3%	0%	33.3%

A student who has accumulated the full number of credits allocated for the current control (JN) will be admitted to the final exam (YaN). The final exam is conducted at the end of the module in the form of an OSCE + test. This assesses students' competencies, practical skills, and theoretical knowledge. The OSCE consists of 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 does not achieve the passing score (60) in the final exam is considered to have failed the exam and not mastered the module (even if they have accumulated full credits in the current control).

The process of conducting the final examination is periodically monitored by a commission formed by order of the educational institution's rector under the leadership of the Internal Control and Monitoring Department. If violations in the examination procedure are found, the results of the final examination are nullified and the examination is conducted again.

Students who could not take the final examination 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 scores less than the passing score on the final examination is considered to have an academic debt.

Students with academic debt are given a one-month period for retaking the examination at the end of the semester. A student who fails to master the module during this period, upon the recommendation of the faculty dean, is expelled from the student body by order of the rector in accordance with the established procedure.

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

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

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

6. **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. Propedeutics 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. Gürel 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., Ibragimov T.I., Ryakhovsky A.N. Functional and Instrumental Research Methods in Orthopedic Dentistry. Study Guide. Moscow, 2003.
9. Lebedenko I.Yu., Kalamkarova S.Kh. Orthopedic Dentistry: Algorithms for Diagnosis and Treatment. Study Guide. Moscow, 2008.
10. A.I. Abdurakhmanov, O.R. Kurbanov. Materials and Technologies in Orthopedic Dentistry. Study Guide. Moscow, 2008.
11. I.V. Aristarkhov. Orthopedic Dentistry. Textbook. Moscow, 2006.
12. E.N. Zhulev, N.V. Kuryakina, N.E. Mitin. Orthopedic Dentistry. Phantom Course. Moscow, 2011.
13. Kh.A. Kalamkarov. Selected Lectures on Orthopedic Dentistry. Moscow, 2007.
14. Lectures on Orthopedic Dentistry. Edited by T.I. Ibragimov. Moscow, 2010.
15. Orthopedic Dentistry. Edited by V.N. Kopeykin, M.Z. Mirgazitov. Moscow, 2001.
16. V.N. Trezubov et al. Orthopedic Dentistry. Moscow, 2010.
17. V.N. Trezubov et al. Orthopedic Dentistry. Applied Materials Science. Textbook. Moscow, 2014.
18. V.N. Trezubov, A.S. Shcherbakov, L.M. Mishnev. Orthopedic Dentistry. Propaedeutics and Fundamentals of the Special Course. Textbook. Moscow, 2014.

**9.3. Internet sites**

1. <http://www.ziyonet.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>

7. **Developed and approved at the Tashkent State Dental Institute.**

**Head of the Educational and Methodological Department:**

 **Azizova F.X.**

**Dean of Faculty:**

 **Murtazaev S.S.**

**Head of the Department:**

**Akbarov A.N.**

8.	<p><b>Persons responsible for the subject/module:</b>  A.N. Akbarov - TSDI, Head of the "Faculty Orthopedic Dentistry Department," Doctor of Medical Sciences, Professor.  O.U. Arslanov - TSDI, Associate Professor of the "Faculty Orthopedic Dentistry Department," Doctor of Medical Sciences, Associate Professor.  N.S. Ziyadullaeva - TSDI, Professor of the "Faculty Orthopedic Dentistry Department," Doctor of Medical Sciences, Associate Professor  K.N. Shoakhmedova - TSDI, Associate Professor of the "Faculty Orthopedic Dentistry Department"</p>
9.	<p><b>Reviewers:</b>  A.A. Akhmedov - SamSMU, Head of the Orthopedic Dentistry and Orthodontics Department, Doctor of Medical Sciences, Associate Professor.  N.M. Alieva - TSDI, Associate Professor of the Propaedeutics of Orthopedic Dentistry Department, Candidate of Medical Sciences</p>

#### Syllabus for Faculty Orthopedic Dentistry Module 2

Full name	Faculty Orthopedic Dentistry 2		
Code: FOS21676	Credit volume in semester: JB - 3.0; OB - 0 credits; YB - 1 credit	7th Module study period: 6-7 semesters	ECTS value: 230
Field of Study	60910100 - Dentistry (by specialization)		
Module duration	4th-year bachelor's students 6 days		
Study hours volume:	Total hours:	90	
	Including:		
	lectures	10	
	practical classes	35	
	independent study	45	
Status of the training module	Clinical modules block		
University name, address	TSDI		
Department name	Faculty of Orthopedic Dentistry		

Information about the instructors of this course	<p><b>Lecturers' full names:</b>  Irsaliev Kh.I.  Arslanov O.U.  Tulyaganov J.Sh.  Habilov B.N.  Irsalieva F.H.</p> <p><b>Full names of practical class instructors:</b>  Akbarov A.N.  Irsaliev Kh.I.  Arslanov O.U.  Tulyaganov J.Sh.  Habilov B.N.  Irsalieva F.H.  Ibragimov A.H.  Achilov Sh.M.  Habilov D.N.</p>	<p><b>E-mail:</b> x_irsaliev@mail.ru  <b>E-mail:</b> dr_otabek1978@inbox.ru  <b>E-mail:</b> stom.jama@mail.ru  <b>E-mail:</b> bekozdo@bk.ru</p> <p><b>E-mail:</b> avzal@rambler.ru  <b>E-mail:</b> x_irsaliev@mail.ru  <b>E-mail:</b> dr_otabek1978@inbox.ru  <b>E-mail:</b> stom.jama@mail.ru  <b>E-mail:</b> bekozdo@bk.ru</p>
Class time and location	TDTU	
Module content	The Faculty Orthopedic Dentistry Module 2 is designed to introduce future specialists to the clinical and laboratory stages of manufacturing removable dentures that restore dental arch defects.	
Prerequisites	The theoretical foundation includes modules in anatomy, physiology, chemistry, biophysics, propaedeutics of orthopedic dentistry, prosthetics with fixed dentures, and FOS 1.	
Post-requisites	FOS 2 serves as the foundation for subjects such as prosthetics with complete removable dentures, dental implantology, and periodontology.	
Purpose of the module	It involves teaching and developing methods aimed at enhancing students' clinical thinking abilities through modern pedagogical technologies, specifically regarding the causes, development mechanisms, clinical presentations, diagnostic and differential diagnostic methods, treatment approaches, and preventive measures for dental hard tissue and dental arch defects.	
Module Functions	Gradually introduce students to the knowledge related to the module sections, teach and develop skills; implement new pedagogical technologies in the educational process to enhance students' clinical thinking abilities and increase knowledge retention; bring practical skills aligned with the standard, aimed at developing students' clinical thinking abilities, to the level of automatism using the assistant-student and student-phantom methods; provide information on the stages of diagnosis and differential diagnosis of dental hard tissue and dental arch	

	defects related to the module, as well as essential aspects of treatment and prevention methods.
Requirements for students' knowledge, skills, and abilities for the module	<p><b>At the end of the VII semester</b></p> <p><b>Student:</b></p> <ul style="list-style-type: none"> <li>- <i>have an understanding</i> of the supporting and retaining components of partial removable dentures, and conditionally removable prostheses supported by implants;</li> <li>- parallelometry, types of materials used for partial removable dentures, <i>know and be able to use them</i>;</li> <li>- <i>Should have skills (including clinical and practical skills)</i> in determining the occlusal height and central occlusion when the height of the lower part of the face is lost.</li> </ul>
Teaching methods	Lecture Practical exercises
Resources	Video films, multimedia and educational computer programs, new technologies in teaching methodology, and assessment of theoretical knowledge on topics are used; independent work of bachelor students, individual and group presentations, preparation of homework assignments, writing essays, tests, case studies, and other tasks.