



МЕДИЦИНСКИ УНИВЕРСИТЕТ – ПЛОВДИВ  
MEDICAL UNIVERSITY – PLOVDIV

[www.mu-plovdiv.bg](http://www.mu-plovdiv.bg)

**Катедра по Пародонтология и  
заболявания на оралната лигавица**

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**Periodontology and Oral Diseases  
Department**

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***ACADEMIC STANDARD***

***FOR THE DISCIPLINE***

**PERIODONTOLOGY**

**AND**

**ORAL DISEASES**

**Updated 2025 y., Department council № 6/11.09.2025 y.**

**Discipline: PERIODONTOLOGY AND ORAL MUCOSA DISEASES**

**Type of discipline:**

Compulsory

**Degree:**

Master's degree

**Forms of training:**

Lectures, seminar exercises, practical training, self-study

**Course length:**

Four semesters

**Academic hours:**

60 lecture hours, 150 exercise hours.

**Training methods:**

Multimedia presentations, practical working on phantom models and patients, discussions, monitoring tests, interpretation of case reports, demonstrations of prophylaxis and treatment methods and protocols

**Forms of assessment:**

Ongoing monitoring, seminars and colloquia, tests, semester examination

**Formation of ongoing monitoring:**

Average score from practical and theory exams

**Aspects of assessment:**

Participation in discussions, seminars and colloquia, monitoring tests

**Semester examination:** Incoming test, practical exam, written and oral theory exam.

**State examination:** Written and oral theory exam

**Tutor:** Habilitated Professors of periodontology and oral mucosa diseases

## **1.THE AIM OF THE EDUCATION COURSE**

The main goal of students' education in the department of periodontology is to learn and build skills, necessary for making the diagnosis, treatment and prophylaxis of periodontal diseases.

The main task of dental medicine doctors is to achieve independent clinical decision making skills and practical manual skills in regard to diagnostic, clinical and treatment process and approaches in periodontal pathology.

The education is orientated to the increasing needs for integrated and specialized approach with good qualified doctors for the sphere of periodontal diseases, systemic conditions, modified by periodontal pathology, periimplant complications and oral mucous diseases.

Periodontology is a basic clinical discipline, detailed studied, in attempt to meet the needs of adequate treatment of the periodontal diseases, which are very widely spread and socially significant problems.

## **MAIN GOALS OF THE EDUCATION COURSE**

Main goals of the curriculum are aimed at:

1. Learning the basic up-to-date theoretical knowledge and practical skills in periodontology, implantology and oral mucous diseases.
2. Students' training in maintaining the periodontal health as a part of systemic health of the patient. Students' training how to offer the highest quality of patients care.
3. Training how to identify and control the main etiologic factors, responsible for disease initiation and progression.
4. Training how to identify and manage basic and additional risk factors, responsible for disease initiation and progression.
5. Acquiring of practical and communicative skills for patient motivation and instructions for doing the optimal personal oral care procedures.
6. Learning of the main disease mechanisms, occurring in the periodontal structures and oral mucous, also in periimplant conditions.
7. Learning the basic principles for implant restoration and possible complications.
8. Introduction to basic systemic conditions, which modify the course of progression of periodontal diseases.
9. Systemic education (theoretical and practical) for learning the basic approaches (nonsurgical and surgical) in the treatment of periodontal and oral diseases.
10. Learning how to collect and interpret clinical and diagnostic information and knowledge about modern concepts for periodontal diseases and treatment protocols and prophylaxis.
11. Learning for clinical decision making, interpretation and assessment of clinical situations.

12. Achievement of necessary behavioral (moral and ethic) reactions of students concerning appropriate communication with patients.
13. Learning how to cooperate with other dental and medical doctors. Basic principles of team-working.
14. Teaching of critical self-evaluation and patient referral to specialists when it is necessary.
15. Stimulation of students to participate in scientific trials, as part of integrated education. Learning how to search and use scientific data and evaluate the information.

## 2. EDUCATIONAL CONTENT

### CURRICULUM PERIODONTOLOGY

Discipline	Exam	Academic hours				ECTS non-auditorium classes	ECTS total	Academic hours in years and semesters			
								IV <sup>st</sup> year		V <sup>st</sup> year	
		Total	Lectures	Practicals	ECTS			VII	VIII	IX	X
Periodontology and oral diseases	X	210	60	150	11,3		11,3	1/1	1/2	1/3	1/4

**LECTURES – SCHEDULE - IV-year, VII semester**

<b>№</b>	<b>Theme</b>	<b>Hours</b>	<b>date</b>
<b>1.</b>	<p><b>INTRODUCTION TO PERIODONTOLOGY.</b></p> <p>Definition of periodontium (periodontium). Anatomy of the periodontium (periodontium). Periodontal structures.</p> <p>Gingiva – macroscopic characteristics, microscopic anatomy (types of epithelium, basement membrane, connective tissue), mechanism of the dentogingival connection (attachment). Gingival crevicular fluid.</p>	<b>2</b>	
<b>2.</b>	<p><b>PERIODONTAL COMPLEX.</b></p> <p>Periodontal ligament, cementum and alveolar bone - macroscopic and microscopic characteristics.</p>	<b>2</b>	
<b>3.</b>	<p><b>ETIOLOGY OF PERIODONTAL DISEASES.</b></p> <p>Dental plaque (bacterial biofilm). Nonspecific and specific plaque hypotheses. Bacterial - immunological theory. Supra- and subgingival and peri-implant bacterial plaque, prerequisites for formation, structure, maturation. Factors determining the composition of bacterial plaque. Periodontopathogenic microorganisms. Supra- and subgingival calculus. Structure. Hypotheses for bacterial plaque mineralization.</p>	<b>2</b>	
<b>4.</b>	<p><b>PERIODONTAL INSTRUMENTATION.</b> Classification of instruments in periodontology. Types of instruments – hand-activated, machine-activated, sonic and ultrasonic, surgical. Viewing tools - mirrors. Tools for periodontal research - explorers, periodontal probes (manually activated, computerized and ultrasonic). Principles of working with periodontal examination and examination tools. Main studied parameters.</p>	<b>2</b>	
<b>5.</b>	<p><b>HAND - ACTIVATED INSTRUMENTS</b> for the removal of calculus. Tool design. Types of tools for removing calculus - scalers (sickle-shaped, curettes, files). Methods of working with the scalers and sequence of manipulations. General principles of periodontal instrumentation. Mechanics of the tool stroke. Instrumentation of teeth from anterior sextants.</p>	<b>2</b>	
<b>6.</b>	<p>Fundamentals and basic principles of <b>INSTRUMENTATION OF POSTERIOR SEXTANTS.</b></p>	<b>2</b>	
<b>7.</b>	<p><b>ULTRASONIC INSTRUMENTS FOR THE REMOVING OF CALCULUS.</b> Main technical characteristics:</p> <p>- Magnetostrictive</p>	<b>2</b>	

	<p>- Piezoelectric</p> <p>Technique of ultrasonic instrumentation. Comparison between sonic and ultrasonic instruments based on their technical characteristics.</p> <p>Application of the tips of the ultrasound devices according to the requirements of the instrumented surface. Modifications and improvement trends. Ultrasound device Vector - technical characteristics, advantages.</p> <p>Machine tools. Machine tool systems. Purpose. Characteristics of their working tips. Machine tools for polishing. indications for polishing tooth surfaces. Adverse effects and contraindications. Means for polishing after instrumenting the tooth surfaces - tips, rubber cups, brushes, abrasive strips. Polishing pastes - requirements for their composition and structure. Polishing technique. Polishing with air - abrasive spray - equipment, indications, contraindications.</p>		
8.	EPIDEMIOLOGY of periodontal diseases. Risk factors in the etiology of periodontal diseases	1	

**Total: 15 hours**

### PRACTICAL EXERCISES – SCHEDULE

#### IV year, VII semester

№	Theme	Hours	date
1.	Periodontology – introduction. Periodontal complex. Gingiva – macroscopic and microscopic structure.	2	
2.	Dental biofilm. Dental calculus and other plaque-retentive factors.	2	
3.	Classification of periodontal instruments. Explorers and probes.	2	
4.	Hand-activated instruments – sickle scalers, files. Basic principles of instrumentation of anterior sextants.	2	
5.	Hand-activated instruments – sickle scalers, files. Basic principles of instrumentation of posterior sextants.	2	
6.	Periodontal curettes – universal and specific. Supra- and subgingival instrumentation with periodontal curettes.	2	
7.	Periodontal curettes – universal and specific. Supra- and subgingival instrumentation with periodontal curettes.	2	
8.	Colloquium on instruments and instrumentation in periodontology. Semester authentication.	1	

**Total: 15 hours**

## LECTURES – SCHEDULE

### IV year, VIII semester

<b>№</b>	<b>Theme</b>	<b>Hours</b>	<b>date</b>
1.	Pathogenesis of plaque-induced inflammatory process in periodontal tissues.	1	
2.	Pathogenesis of periodontal diseases. Defense mechanisms of the gingiva.	1	
3.	Classification of periodontal diseases.	1	
4.	Clinical methods of evaluation of a patient with periodontal disease. Indices.	1	
5.	Clinical methods of evaluation of a patient with periodontal disease. Indices.	1	
6.	Radiographic aids in the diagnosis of periodontal diseases.	1	
7.	Advanced aids in periodontal diagnosis.	1	
8.	Gingival health and periodontal health.	1	
9.	Gingivitis.	1	
10.	Plaque-induced gingivitis modified by sex hormones.	1	
11.	Drug-induced gingival overgrowth.	1	
12.	Non-plaque-induced gingivitis. Gingival lesions in mucocutaneous autoimmune diseases.	1	
13.	Non-plaque-induced gingivitis. Gingival lesions in mucocutaneous autoimmune diseases.	1	
14.	Necrotizing periodontal diseases – gingivitis, periodontitis, stomatitis	1	
15.	Acute periodontal diseases.	1	

## PRACTICAL EXERCISES – SCHEDULE

### IV year, VIII semester

<b>№</b>	<b>THEME</b>	<b>HOURS</b>	<b>DATE</b>
1.	Introduction, safety instructions, etc.	2	
2.	Ultrasonic instrumentation	2	
3.	Pathogenesis of periodontal diseases	2	
4.	Defense mechanisms of the gingiva	2	
5.	Clinical methods of evaluation of a patient with periodontal disease.	2	
6.	Indices	2	
7.	Radiographic aids in the diagnosis of periodontal diseases	2	
8.	Advanced aids in periodontal diagnosis	2	

9.	Gingivitis – etiology, pathogenesis, risk factors	2	
10.	Gingivitis – clinical signs and symptoms.	2	
11.	Gingival enlargement.	2	
12.	Desquamative gingivitis	2	
13.	Necrotizing gingivitis and periodontitis	2	
14.	Acute gingival diseases	2	
15.	Semester authentication.	2	

**Total: 30 hours**

**LECTURES – SCHEDULE**  
**V year, IX semester**

<b>№</b>	<b>Theme</b>	<b>Hours</b>	<b>date</b>
1.	Periodontitis - etiogenic factors, pathogenetic mechanisms, histomorphological changes in periodontal tissues. Periodontal pocket - clinical and radiological characteristics.	1	
2.	Periodontitis - classification, etiology, clinical signs and symptoms, radiographic findings.	1	
3.	Periodontal manifestation of systemic diseases and acquired conditions.	1	
4.	Periodontal manifestation of systemic diseases and acquired conditions.	1	
5.	Trauma from occlusion	1	
6.	Trauma from occlusion	1	
7.	Endo- periodontal lesions.	1	
8.	Endo- periodontal lesions.	1	
9.	Treatment of periodontal diseases. Treatment plan.	1	
10.	Treatment of periodontal diseases. Initial (hygienic) phase.	1	
11.	Treatment plan. Mechanical plaque control for periodontitis patient.	1	
12.	Chemical plaque control for periodontitis patient.	1	
13.	Systemic antibiotic treatment.	1	
14.	Systemic antibiotic treatment.	1	
15.	Local delivery of antimicrobials.	1	

**Total: 15 hours**

## PRACTICAL EXERCISES – SCHEDULE

### V year, IX semester

<b>№</b>	<b>Theme</b>	<b>Hours</b>	<b>date</b>
1	Introduction. Safety measures and instructions	3h	
2	Gingivitis-summary. Clinical assessment of basic indices and parameters ( PI, BoP, PPD, CAL, Recession)	3h	
3	Gingival diseases- summary	3h	
4	Plaque control- instructions, motivation, methods.	3h	
5	Periodontal pocket	3h	
6	Bone loss and patterns of bone destruction	3h	
7	Periodontitis- classification- staging and grading, etiology, clinical signs and symptoms, radiographic findings	3h	
8	Periodontal manifestation of systemic diseases and acquired conditions.	3h	
9	Periodontal manifestation of systemic diseases and acquired conditions.	3h	
10	Colloquium	3h	
11	Acute periodontal lesions	3h	
12	Endo-periodontal lesions	3h	
13	Treatment plan for the patient with periodontal disease	3h	
14	Mechanical plaque control.	3h	
15	Chemical plaque control	3h	

**Total:45**

## LECTURES – SCHEDULE

### V year, X semester

<b>№</b>	<b>Theme</b>	<b>Hours</b>	<b>date</b>
1.	Corrective phase of the treatment of periodontal diseases. Stabilization of teeth with damaged periodontium - purpose and tasks. Types of tires. Temporary and permanent splinting - indications, contraindications, advantages and disadvantages.	1	
2.	Periodontal surgery - classification, instrumentation, basic principles.	1	
3.	Resective surgical methods - gingivectomy, gingivoplasty	1	
4.	Resective surgical methods – apically displaced flaps, ostectomy, osteoplasty.	1	
5.	Reconstructive periodontal surgery – guided bone regeneration, bone grafts.	1	

6.	Reconstructive periodontal surgery - biomodification of the root surface.	1	
7.	Mucogingival surgery.	1	
8.	Mucogingival surgery.	1	
9.	Furcation defects. Classification. Index systems.	1	
10.	Furcation defects. Clinic, diagnosis and treatment.	1	
11.	Gingival recession – diagnosis, classification, treatment.	1	
12.	Peri-implant diseases and conditions. Peri-implant health.	1	
13.	Peri-implant diseases and conditions. Perimucositis. Peri-implantitis.	1	
14.	Maintenance periodontal treatment	1	
15.	Maintenance periodontal treatment	1	

**Total: 15 hours**

### PRACTICAL EXERCISES – SCHEDULE

**V year, X semester**

№	Theme	Hours	date
1	Systemic antibiotic treatment of periodontal diseases.	4	
2	Locally delivered antimicrobials		
3	Trauma from occlusion	4	
4	Splinting of mobile teeth	4	
5	Basic principles of periodontal surgery	4	
6	Flaps – classification, indications	4	
7	Bone grafting materials, membranes, biologicals used in periodontal regeneration	4	
8	Surgical techniques for periodontal regeneration	4	
9	Furcation involvement. Treatment options	4	
10	Recessions. Treatment modalities	4	
11	Peri-implant diseases. Supportive periodontal treatment.	4	
12	Practical for resective methods on bovine models	4	
13	Practical for regenerative methods on bovine models	4	
14	Practical exam	4	
15	Semester authentication.	4	

**Total: 60 h**

### **3. EXPECTED RESULTS**

After completing the training, the student must have the following knowledge and skills:

1. To know the basic etiological factors responsible for the formation and development of diseases of the periodontal and oral mucosa.
2. Being able to educate patients about the major etiological factors in periodontal and oral mucosal diseases and to encourage them to take responsibility for their own periodontal health.
3. Discuss with the patient the possible impact of additional risk local and systemic factors on his illness.
4. To know and apply all methods of control of supra- and subgingival dental plaque (biofilm).
5. To instruct patients on appropriate modern methods and means for oral hygiene, compatible with their periodontal and implantable health.
6. Evaluate the condition of the periodontal structures and the oral mucosa of the patient in the context of the general condition of the body.
7. Assess the individual risk of development of periodontal and oral mucosal diseases.
8. To apply modern methods and tools in diagnostics and differential diagnostics of periodontal and oral mucosal diseases.
9. Predict the outcome of the disease present and comment with the patient.
10. Be able to form an individual treatment plan for each patient according to local and systemic factors.
- 11 Evaluate all long-term treatment outcomes, including with the assistance of other professionals.
12. To diagnose, explain and discuss the necessity of periodontal-surgical procedures and implantology treatment and to direct the patient to specialized care.
13. To develop and implement individual prophylactic and rehabilitation procedures necessary for the health of the periodontal structures and the oral mucosa, tailored to the individual risk.

### **4. ACADEMIC RESOURCES**

The department has the necessary number of lecturers (2 habilitated and 8 non-habilitated) according to the accepted norms for teaching workload of the lecturer from the Faculty of Mathematics and Physics, Plovdiv University. Teachers have excellent theoretical and practical training in the discipline

## 5. MATERIAL RESOURCES

The department has 3 clinical rooms and 1 phantom room for the training of the discipline:  
Laboratory security of the department (general apparatus and specific diagnostic equipment)

<b>№</b>	<b>Наименование на основното средство</b>	<b>бр</b>
1.	Autoclave	2
2.	Immune fluorescent device for diagnosis periodontitis and oral carcinomas	1
3.	Device for Supra-et sub gingival polishing	1
4.	Vector Paro Ultrasonic device	1
5.	Sharpening instruments device	1
6.	Packing machine for instruments	1
7.	Ultrasonic surgical device	1
8.	Piezoelectric Pieson Master device	2
9.	NSK/ Ultrasound NSK Device	1
10.	Ultrasound device Pieson Master	4
11.	Ultrasound device Pieson Master	1
12.	Ultrasound cleaning device	5
13.	Halitosis measuring device Oral Chroma	1
14.	TEKMIL-CORRECTA TOUCH/ Dental unit TEKMIЛ-CORRECTA TOUCH/	8
15.	Diagnosing therapy complex	1
16.	Light-curing lamp	3
17.	Oil- service machine device Assistina	2
18.	Oil-service machine device	1
19.	Air- polishing Proceo Aura	10
20.	Aspiration device Rain4 +	1
21.	Aspiration Metasys	1
22.	Computerized periodontal probe	1
23.	Pa-On/ Peridontal probe Pa-On	1
24.	Dental unit Gnatus LSF	8
25.	Dental unit EPIKA	3
26.	Dental unit CORRECTA	4
27.	Dental unit EPICA	6
28.	Light- curing lamp	1
29.	Dental Unit Epika	2
30.	Dental unit Tekmil-Diverso	1

## **6. Lectures**

The lectures are delivered as multimedia presentations and provided to the students in advance. The extent and format of the lectures are chosen by the lecturer.

## **7. Practical exercises**

The practical exercises are held in the clinical halls of Periodontology in a group of 4-8 students. For the topic of each exercise, self-solving tests are provided. They check the student's preparation and the knowledge and skills acquired on the subject. After the self-employment, the assistant must discuss the gaps in the theoretical part of the test. Under the guidance and supervision of the assistant, students undertake treatment for patients. Clinically, clinical cases are discussed and different clinical tasks are addressed. By way of exception, instead of a test, it may be required as a self-study assignment to prepare a referral and protect the next occupation.

## **8. Seminar exercises**

For the seminar, it is recommended to have a preliminary literature on the topics to be discussed. The student is asked a theoretical question to which he answers in writing, after which a clinical case is discussed.

## **9. Recommended Books**

1. Fundamentals of periodontal instrumentation and advanced root instrumentation. 7th edition. Jill S. Nield-Gehrig.
2. Carranza's clinical periodontology. 11th edition. Newman, Takei, Klokkevold, Carranza.
3. Fundamentals of periodontics. 2nd edition. Wilson, Kornman.
4. Root scaling and planning. A fundamental therapy. B. Wasserman
5. Successful periodontal therapy. A non-surgical approach. P. Heasman, Ph. Preshaw, P. Robertson.
6. Clinical periodontology and implant dentistry. J. Lindhe, N. Lang, T. Carrington.

Electronic sources

1. Journal of clinical periodontology
2. Journal of periodontology
3. Periodontology 2000

## **10. Control work**

At each practical exercise, a continuous control of the knowledge is carried out by conducting a test on the subject of the respective lecture and exercise. After the test, the assistant must provide information and explanations to assist in the further preparation of the students. The results of these checks are included as a component in the current assessment for the semester.

Students are required to interpret and interpret the results of specific allergic and focal diagnostic tests. The results of the practical work are part of the semester's certification.

### **11. Independent work and commitment of the student**

Self-care is led by an assistant who guides the student both in literary sources and in the methods of their learning.

### **12. Collaboration between students and the teaching staff.**

The cooperation is expressed in:

- Teacher commitment to the student and his / her pre-training, current learning difficulties and opportunities with an individual learning program to achieve more
- Providing reception counseling hours
- Involving students in teams for scientific tasks, research, projects, etc.

### **13. Exams**

The current assessments provided by the curriculum of the specialty are given for:

- The activity and results of the student in the clinical exercises during the semester
- Colloquium written work
- Work of the student with the lecturer in research and projects

### **13. Evaluation standards**

- **Excellent (6)** - Good knowledge of the learning material, thoroughly mastered key and additional knowledge and skills, meaningful and correct understanding of matter. Skills to solve clinical tasks, to justify decisions, to draw conclusions. Accuracy of the exhibition and rich medical dictionary and culture.
- **Very good (5)** - Very good mastery of keys and knowledge, meaningful and correct differentiation of matter, ability to apply scientifically in clinical cases and tasks Difficulty in making decisions for independent decisions.
- **Good (4)** - Good knowledge of the material, master and additional knowledge. There is a lack of in-depth knowledge in the interpretation of the study material and in the making of substantiated independent decisions.
- **Medium (3)** - Basic knowledge of the study material. Basic knowledge of solving simple tasks. Poor medical language.
- **Poor (2)** - Does not meet any of the requirements above.

**At the beginning of the sessions the students acquaint themselves with the evaluation standards, the procedures for conducting the current control and the opportunities for obtaining feedback on their progress during the semester.**

### **15. Formation of the final mark**

The final evaluation is multi-component and includes the assessments of:

- Semester score
- Test
- Written final exam
- Oral final exam

For each component involved in the final evaluation, a significance factor of 0 to 1 is defined:

- Semester score –  $\kappa_1=0.20$
- Test –  $\kappa_2=0.30$
- Written final exam –  $\kappa_3=0.25$
- Oral final exam –  $\kappa_4=0.25$ ,

The total sum of the coefficients must always be 1. The final estimate is the sum of the six-point scores of the different components multiplied by the relevant coefficients of significance as follows:

$$Q_{\text{final mark}} = \kappa_1 \times Q_{\text{semester score}} + \kappa_2 \times Q_{\text{test}} + \kappa_3 \times Q_{\text{written exam}} + \kappa_4 \times Q_{\text{oral final exam}}$$

**If one of the final exam components mark is poor 2, the final degree mark is necessarily poor 2!**

The exam materials are stored in the office and provide the opportunity for the students to get acquainted with them and with the grounds for assessment according to the order and procedure announced in bc. 13 in this standard. The period during which the students have access to the exam materials and results is not longer than 5 working days after the exam date.

At the beginning of the student's training access to the characteristic of the discipline is given in this form.

This requirement is set in accordance with the HEA Art. 56, para. 1, "Teachers are required to elaborate and publicize in an appropriate manner and description of the lecture course conducted

by them, including the titles and the sequence of the topics of the curriculum, the recommended literature, the way of forming the assessment and the form of examining the knowledge and skills"

HEAD OF DEPARTMENT:

ASSOC. PROF. BLAGOVESTA YANEVA