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1. **PRELIMINARIES**
* ***General presentation of discipline: place and role of discipline in formation the specific competences of of professional/speciality formation program***

 Periodontology course repressents an important compartment in training of specialities in practical dentistry domain and has as a right objective the study of anatomical-physiologycal particularities of tissues that form margian periodontium, the complexity of examination (subjective, objective and complementary) of the patients with marginal periodontium diseases. Also the study of onset elements of evolution the pathologyc processes at the level of marginal periodontium as well as the possible complications at the local level, also at the level of whole body, including the occurrance of focus disease.

 The coures content is structured to understand macro- and microstucture of the components of marginal periodontium, anatomical-physiological aspects in the conditions of healthy periodontium and the effects of the interaction of whole organism. In the same time are described the pathological processes that occur at the level of marginal periodontium in specific conditions at the level of oral cavity, in the presence of local specific factors, contributing that initiate and induce the onset and evolution of the inflammatory processes. The use of techniques and procedures to remove bacterial plaque and tartar, including the professional brushing as a components of complex periodontal treatment that includes more stages: **initial treatment** (general to the necessity, odontal, periodontal, surgical, temporary prosthetic); **corrective treatment** (periodontal surgery , definitive prosthetic, including endo-osseous); **maintaining treatment** (periodic clinical reevaluation, that may contain elements from previous stages). So the complex approach in examination and pacient treatment with periodontal disease, interaction at the level whole organism are the basic objectives of the discipline.

* **The curriculum mission (purpose) in professional formation**

One of the basic objective of the course is learning and knowing the causes (etiologyc factors) and mechanisms of onset and evolution (pathogenic mechanism) of periodontal disease, both at local level and on whole organism, complex examination of patients, diagnosis setting, layout the treatment plan and its realization, including all prophylactic elements.

Another important objective is knowing the organization structure the healthcare, organization and equipment the dental office of periodontal profile, machines and instruments used in complex periodontal treatment. Also at the level of understanding an imprtant objective is the interdisciplinary aspect within the dental specialties, also those medical general, so to maintain the oral health and as a consequence whole the body.

* **Teaching languages of the discipline:** romanian, english.
* **Beneficiaries:** students of IV/V years, Faculty of Stomatology .
1. **ADMINISTRATION THE DISCIPLINE**

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| --- | --- |
| Discipline code | **S.08.O.090 –**  clinical periodontology (I)**S.09.O.111** – clinical periodontology (II) |
| Discipline name | **Periodontology** |
| Responsable (s) for the discipline | **PHD, DMD. Valentina Nicolaiciuc** |
| Year | **IV-V** | Semesters | **VIII-IX** |
| Total number of hours, including: | **90/150** |
| Course | **24/30** | Practical lessons | **42/53** |
| Seminares | **18/22** | Individual work | **6/45** |
| Evaluation form | **C/E** | Number of credits | **3/5** |

1. **TRAINING OBJECTIVES IN THE DISCIPLINE**

**• At the level of knowledge and understanding:**

* To know the structure and organization the healthcare, organization and equipment the dental office and the officw of periodontal profile;
* To know the place and role of periodontology in the treatment and prophylaxis of denatal diseases;
* To know the machinaries and instruments of examination, treatment of periodontal diseases (dental unit, instruments and apparatus for complex examination, instruments for scaling, curettage and periodontal surgery and others);
* To know the structure and marginal periodontium functions;
* To know and to understand physiological processes that take place at the level of periodontal tissues (gingiva, periodontium and supporting osseous tissue);
* To know the rules of asepsic and antiseptic in dentistry;
* To know the notions of inflammatory process at the level of periodontal tissues;
* To know plaque indices, bleeding, calculus and periodontal;
* To know the components and significance of periodontal status (components of periodontal chat);
* To know examination methods and diagnosis of periodontal disease – of gingivitis, marginal periodontitis (clinical and paraclinical);
* To know the classifications of periodontal disease (national and international);
* To know etiologic factors (local and general) in occurrance and evolution of periodontal disease also the favoring and determinative factors;
* To know and to understand pathogenical mechanisms in onset and evolution the periodontal disease (gingivitis, marginal periodontitis);
* To know and to understand morphological modifications in marginal periodontitis tissues;
* To know and to understand the mechanism of action of methabolic produces from the level of marginal periodontium on the whole body;
* To know techniques and procedures of anesthesia in dentistry;
* To know and to understand the mechanism of action the anesthetic substances on anesthetic zone and on the whole organism;
* To know and to undertand the causes of possible complications after application the anesthesia and emergency medical assistance;
* To know medicamentous remedies used in the treatment of periodontal disease Antibiotics, antiseptics, biostimulations and others), their local and general action;
* To know the classification of materials used in the treatment of periodontal disease for temporary and long-term imobilization;
* To know the techniques and procedures for removal the dental deposits (manual scaling, ultrasonic, combined and professional brushing, irrigations and others);
* To know the instruments and devices used fro dental deposits removal;
* To know the techniques and toolkit used in closed field curettage (indications, contraindications, stages and consequence);
* To know the notion of periodontal surgery (mucogingival, resectional, regenerative, reconstructive);
* To know the classification of techniques and surgical procedures (gingivectomy/gingivoplasty, curettage on opened field, flap procedures, guided tissue regeneration (GTR), closure the gingival recessions);
* To know the indications and contraindications in periodontal surgery;
* To know instruments and equipment used in periodontal surgery;
* To know the classification and properties of addition materials used in regenerative periodontal surgery;
* To know the elements of care the postoperative wound in periodontal surgery (medicamentous remedies of local and general use, patient recommendations);

*At the level of application:*

* To be able to collect the patient data for a complete anamnesis (subjective examination);
* To be able to complete medical card of the patient with periodontal disease, including the informed agreement;
* To be able to evidence the important data for diagnosis setting;
* To posses the abilities of communication with the periodontal patient to obtain the complete information to set the diagnosis;
* To be able to perform the clinical and paraclinical diagnosis of the aptient with periodontal disease;
* To be able to argue for the necessity in paraclinical examination chosen depending on the clinical case;
* To be able to describe the stages and methods of asepsis and antisepsis;
* To be able to describe the antiseptic substances used in periodontology and indications of their usage;
* To be able to describe and apply the techniques of anesthesia in periodontal treatment;
* To posses abilities of emergency medical assistance;
* To posses the techniques and procedures of dental deposits removal (manual scaling, ultrasonic, combined and professional brushing, subgingival air-flow, irrigations);
* To know and to be able to describe the instruments and materials used in periodontal surgery;
* To be able to perform debridement and decontamination of periodontal pockets (manual and with Vector device, laser, photodynamic therapy;
* To be able to realize the occusal recording and selective grinding;
* To posses the abilities of temporary and long-term imobilization of periodontla teeth;
* To be able to realize the curettage in closed field;
* To be able to realize stages of gingivectomy/gingivoplasty;
* To be able to realize the curettage in closed field;
* To posses the abilities of care the postoperative wound in periodontal surgery (medicamentous remedies of local and general way, patient recommendations).

***At the level of integration:***

* To appreciate the level of periodontal assistance;
* To appreciate the type of dat collection in dependence on patient (dialogue, investigation, combined)
* To appreciate the level of patient satisfaction after various criteria;
* To allocate the necessary instruments in dependence on their purpose;
* To ensure the respect of ethics and professional deontology;
* To evidence of patient problem with appreciation the options of paraclinical examination necessary for setting the diagnosis.
1. **CONDITIONINGS AND PRELIMINARY EXIGENCES**

Knowing and respect for the ethical-moral and professional norms in relation with patients. Knowing the purpose and objectives of periodontal assistance. Knowing the anatomic-physiological particularities of marginal periodontium. Knowing the organization of periodontal assistance in the periodontal office. Knowing the legislative framework and the necessary documentation in the periodontal office (medical card, periodontal status, register of evidence the sterilization control, register evidence the patients with periodontal disease). Knowing the methods and stages of clinical and paraclinical examination in periodontology. Knowing the methods of prophylaxis. Knowing the principles of asepsis and antisepsis. Knowing the consequences of complex treatment stages of the patients with periodontal disease. Knowing the information sources necessary in periodontal assistance activity.

1. **THEMES AND ORIENTATIVE REPARTISATION OF COURSES**

| Nr. | ТHEME | Number of hours |
| --- | --- | --- |
| Lectures | Semi-nars | Prac-tice | Individual |
|  | Periodontology as medical science. Goals and tasks. Particularities of periodontology as a specialization in dentistry. Terminology.Basic principles of organization of dental / periodontal care. Requirements for the organization and organization of the cabinet. Dental medical documentation in the department of periodontology. | 2 | 1 | 2 |  |
|  | Periodontium. Notion. Overview. The anatomo-physiological features of periodontal tissues. The structure and functions of the marginal periodontium. Superficial periodontium and deep periodontium. | 2 | 2 | 4 |  |
|  | Etiology, pathogenesis, modern conception in the onset and evolution of periodontal disease. Classification of periodontal disease. | 2 | 1 | 3 |  |
|  | Clinical examination of periodontal patients. Subjective exam - anamnesis, objective - instumental. Hygiene and periodontal indices. | 2 | 1 | 4 | 1 |
|  | Perodontometry techniques (measuring the depth of periodontal pockets). Periodontal status, its significance and importance in the monitoring of periodontal patients. | 2 | 2 | 4 | 1 |
|  | Paraclinical examination of periodontal patients. Their purpose and role in specifying the diagnosis. Radiographic examination (OPG, RVG, CT), laboratory, bacteriological examination, indications and their clinical significance. | 2 | 1 | 4 | 1 |
|  | Gingivitis. Notion. Local and general etiological factors. Classification. Bloody, ulcerative, descuative gingivitis. Etiology, pathogenesis, clinical picture, positive and differential diagnosis. Treatment. Prophylaxis. | 2 | 2 | 3 |  |
|  | Hypertrophic gingivitis. Gingivitis of pregnancy. Etiology, pathogenesis, clinical picture, positive and differential diagnosis. Treatment. Prophylaxis. | 2 | 1 | 3 |  |
|  | Marginal periodontitis. Notion. Degree of morbidity. Etiology, pathogenesis. The role of local and general factors in the onset and evolution of this process. Immunological aspects. | 2 | 1 | 3 |  |
|  | Clinical forms of marginal periodontitis (acute, chronic, aggravated). Process gravity (incipient, mild, medium and serious / advanced) Clinical aspects. Notion of parodontitis. | 2 | 2 | 4 | 1 |
|  | Complex aspects of marginal periodontitis (local and general). Treatment plan. Initial treatment (periodontal, odontal / endodontic, surgical, orthopedic). | 2 | 2 | 4 | 1 |
|  | Local treatment of marginal periodontitis (antiseptic). Manual, ultrasonic, sonic, Air-Flow, professional brushing. Instruments, equipment, chemical remedies, including anesthetics, procedures and techniques | 2 | 2 | 4 | 1 |
|  | Total:  | 24 | 18 | 42 | 6 |
| 21 | Traumatic occlusion. Harmful effects on periodontal teeth. Occlusogram, techniques of realization. Selective sanding, selective shearing techniques and techniques | 2 | 2 | 4 | 4 |
|  | Techniques and procedures for periodontal teeth (temporary). Systems and materials used. Indications and contraindications. Advantages and disadvantages. | 3 | 2 | 4 | 4 |
|  | Techniques and procedures for debriding and decontamination of periodontal bags. Indications and contraindications. Instruments, apparatus and medication, including anesthetics. | 3 | 2 | 4 | 4 |
|  | Biostimulation therapy in the treatment of periodontal disease. Principles, indications and contraindications, procedures and techniques of use. Medical equipment, instruments and remedies. | 2 | 2 | 4 | 3 |
|  | The notion of corrective stage of treatment (periodontal / implantology surgery, definitive orthodontic / orthopedic) in the context of the complexity of periodontal treatment. | 3 | 1 | 2 | 3 |
|  | Curettage in the closed field. Indications and contraindications. Methods and techniques. Drugs and remedies used. | 3 | 2 | 5 | 5 |
|  | Gingivectomy / gingivectomy. Notion. Indications and contraindications. Methods and techniques for making. Drugs and remedies used. | 3 | 2 | 5 | 5 |
|  | Curettage in open field. Indications and contraindications. Techniques and remedies for anesthesia of the intervention area. Methods and techniques. Drugs and remedies used. | 3 | 2 | 5 | 5 |
|  | Emergency medical assistance to periodontal treatments. | 2 | 3 | 5 | 3 |
| 2 | Wearing postoperative wound in periodontal surgery (local remedies for general and local use, patient recommendations). | 2 | 1 | 5 | 3 |
|  | Maintenance treatment (local and general - periodic prophylactic visits). Its role and importance in the complex treatment of periodontal disease. | 2 | 2 | 5 | 3 |
|  | Clinical reassessment of the periodontist patient. Periodicity. Assessment of periodontal status. Dispensary items. | 2 | 1 | 5 | 3 |
|  | Total: | 30 | 22 | 53 | 45 |
| **Total** | **54** | **54** | **40** | **95** |

1. **REFERENCE OBJECTIVES AND CONTENTS UNITS**

| **Objectives** | **Contents units** |
| --- | --- |
| Particularities of periodontology. Organizing the periodontics cabinet. |
| * to know the structure and organization of dental care, the organization and equipment of the dental office and of the department of periodontology;
* to know the place and role of periodontitis in the treatment and prophylaxis of general disorders;
* to be familiar with the examination equipment and instruments, and treatment of periodontal disease (dental equipment, complex examination instruments and instruments, scaling instruments, periodontal curettage and surgery, etc.);
 | Role of the profession of periodontologist. Object and tasks.Organizing the periodontological assistance, the periodontology cabinet, the instrument and the equipment.The role of periodontology in the prevention of general affections.Instrument for examination, for scaling, curettage and periodontal surgery.Dental medical documentation in the department of periodontology |
| **Topographic anatomy, physiology and functions of the marginal periodontium.** |
| * to know the structure and functions of the marginal periodontium;
* to know and understand the physiological processes occurring at the marginal periodontal tissues (gum, periodontium and bone supporting tissue);
 | Marginal periodontium superficial and deep. Supporting function, trophic, biomechanicalVascularization and innervation of marginal periodontium.The anatomical elements of the marginal periodontium and the biomechanics relationship with the teeth. |
| Clinical and paraclinical examination of patients with periodontal disease. |
| * be familiar with plaque, bleeding, tartar and periodontal index;
* to know the components and the significance of the periodontal status (components of the periodontal chart);
* to know methods of examination and diagnosis of periodontal disease - gingivitis, marginal periodontitis (clinical and paraclinical);
 | Determination of hygiene,plaque, bleeding and periodontal indices.Bleeding level, gingival retraction, depth of periodontal pockets. Completing the periodontal chartSubjective and objective examination. Paraclinic - radiographic examination (OPG, RVG, CT), bacteriological (bacterial flora from periodontal pockets), clinical (general blood analysis), biochemical (blood glucose level). |
| **Etiologic Factors and Pathogenesis of Periodontal Disease. Classification.** |
| * be familiar with the classification of periodontal disease (national and international);
* to know the etiological factors (local and general) in the occurrence and evolution of periodontal disease as well as the factors favoring and determining;
* to know the notions of the inflammatory process in the periodontal tissues;
* to know and understand the pathogenic mechanism in the beggining and evolution of periodontal disease (gingivitis and periodontitis);
* to know and understand the morphological changes in the margins of the periodontium;

**•** to know and understand the mechanism of action of the metabolic products at the level of the marginal periodontium on the whole organism | World Health Organization, clinical and international classification (gingivitis, periodontitis).Local factors - bacterial plaque, dental tartar, anomaly of position, marginal periodontity biotype. General factors - systemic diseases: cardiovascular, digestive tract, endocrine (diabetes), etc.Pathogenic mechanism of begining and evolution of the inflammatory process.Inflammatory process (hyperimmia, gingival edema, exudative processes), appearence of periodontal pockets.Changes in the periodontal ligament, bone and cell.Dissemination of infection (toxins) through the blood stream (various organs), sensibilization of the organism, debut and evolution of outbreak dissease. |
|  |  |
| **Anesthesia. Types of anesthesia. Anesthetic substances, properties. Emergency medical help** |
| * to know the substances, techniques and methods of anesthesia in dentistry;
* to know and understand the mechanism of action of anesthetic substances on the anesthesia area and the whole body;
* know and understand the causes of possible complications after application of anesthesia and emergency medical assistance.
 | Anesthetic substances, properties, types of anesthesia , techniques - mandibular, menton, infra-orbital, infiltrative, intraligamental, etc.Time and area of action, effects on the whole organism.Overdosage, anesthetic substance concentration, allergic component, general system disorders. Knowing the steps of providing emergency medical help. |
| **Local and general treatment of periodontal disease. Procedures and techniques, instrumentation and equipment, used medical remedies.** |
| * to know the medications used in the treatment of periodontal disease (antibiotics, antiseptic biostimulators, etc.), their local and general action;
* to be familiar with the classification of materials used in the treatment of periodontal disease for temporary and long-term care;
* know techniques and procedures for removing dental deposits (manual, ultrasonic, combined and professional brushing, irrigation, etc.);
* know the instruments and devices used to remove dental deposits;
* to know the techniques and instruments used in closed curettage (indications, contraindications, steps and consecutivity);
* to know the notion of periodontal surgery (muco-gingival, resective, regenerative and reconstructive);
* to know the classification of surgical techniques and procedures (gingivectomy / gingivoplasty, open-field curettage, flap operations, guided tissue regeneration (RTG), closing of gingival recessions);
* know the instruments and equipment used in periodontal surgery;
* be familiar with the classification and properties of additive materials used in periodontal regenerative surgery;

• Be familiar with the elements of care of postoperative injuries in periodontal surgery (local and general drug remedies, patient recommendations); | Antiseptic substances, antibiotics, biostimulators, properties, concentration, mechanism of action at local and general level.Temporary imobilization materials: glass fiber strips, metallic wire (retainer), semi-liquid composite materials, acrylic crowns.Technique of manual, ultrasonic, combined, Air Flow and professional brushingCurettes, ultrasonic devices, brushes,paste for professional brushing, irrigation substancesIndications, contraindications. Consequence of the working steps. Used medical instruments and remedies: (curettes).Notion. Classification of periodontal surgery.Techniques and procedures in periodontal surgery. Their classification.Instruments used for examination (periodontal probes, scalpel, curettes,burs, sutures)Additive materials, classification, properties, indications and contraindications in use.Antiseptic substances used in postoperative injuries lavage, antibiotic prescriptions, patient recommendations (dressing visits, oral hygiene in the postoperative period) |

1. **PROFESSIONAL COMPETENCES (CY) AND TRANSVERSAL (CT)) AND STUDY FINDINGS**

 **Professional competencies (specific) (CS)**

**CP1:** Knowledge of the theoretical bases of anatomy and physiology of superficial and profoundly marginal periodontitis, general principles in patient examination, analysis and interpretation of clinical and paraclinical data; knowledge of the legislation, asepsis and antisepsis in the periodontology cabinet, knowledge of the rights and obligations of the medical doctor.

**CP2:** Knowledge and simulation of the clinical and paraclinical examination of patients with periodontal disease (evaluation of periodontal indices, periodontal status); evaluation of paraclinical examination data.

**CP3:** Completing the medical records of patients with periodontal disease, performing the clinical examination and elaborating the indications for the type of paraclinical examination with their argumentation. Establishing the diagnosis and treatment plan. Elaboration of the algorithm for data collection and work with the patients in the periodontology cabinet.

**CP4:** Analysing the paraclinical data of laboratory investigations (bacteriological, clinical and biochemical) and their description. Analysis of radiological clusters (OPG, RVG), evaluation and description of anatomical formations based on computed tomography with conical fascicle.

**CP5:** Description of the concept and types of prophylaxis, and their application levels (individual, group, society). Evaluation of sterilization control methods for materials and instruments used in periodontal treatment. Evaluation of dispensary evidence for patients with periodontal disease.

**CP6:** Demonstration and application of acquired knowledge in the clinical and paraclinical assessment of the patient with periodontal disease. Selection and argumentation of communication techniques, data collection and patient preparation for periodontal surgery (gingivectomy / gingivoplasty, open field curettage). Promotion of the principles of tolerance and compassion towards patients.

**Transversal competences (tc)**

**CT1:** Applying professional standards of assessment, acting according to professional ethics, as well as the provisions of the legislation in force. Promoting logical reasoning, practical applicability, assessment and self-assessment in decision-making.

**CT2**: Performing activities and exercising the roles specific to teamwork within the periodontology cabinet. Promoting the spirit of initiative, dialogue, cooperation, positive attitude and respect for others, altruism and continuous improvement of our own activity in the field of periodontology.

**CT3**: Systematically assessing of personal skills, roles and expectations, applying self-assessments to teached processes, acquired skills and professionalism needs, effective use of language skills, knowledge in information technologies, research and communication skills to deliver quality services in the field of periodontology and adaptation to the dynamics of health policy requirements and for personal and professional development.

**Study findings**

At the end of the course, the student will be able to:

• to know the basic principles, the functional structure and the organization of health care in general and in the periodontology cabinet, as well as general stomatology, especially in the Republic of Moldova;

• to know the role and functions of the dentist in the healthcare organization system;

• to promote healthy lifestyle and health education through speeches, papers, presentations, articles in specialized journals, etc.

1. **INDIVIDUAL WORK OF THE STUDENT**

| Nr. | The expected result | Implementation Strategies | Evaluation criterias | Deadline |
| --- | --- | --- | --- | --- |
| 1. | Working with information sources | Reading the lecture or textbook material on this topic.Reflection on the topic in the questions.Knowledge and selection of additional information sources on the topic.Reading the text carefully and describing the essential content.Formulating generalizations and conclusions on the importance of the topic / subject. | The ability to extract the essentials.Interpretative skills. The ability to analyze and communicate the material accumulated independently. | During the semester |
| 2. | Solving the problems of the situation | Solving case problems, arguing the conclusions at the end of each practical work. Verification of the finalities and appreciation of their achievement. Selection of additional information, using electronic addresses and additional bibliography. | The quality of problem solving and clinical case, the ability to formulate and interpret clinical and paraclinical data.Ability to analyze selected information from national and international professional websites. | During the semester |
| 3. | **Evaluation of perception in clinical and paraclinical examination of patients with periodontal disease.**Each student will complete the patient's medical record with periodontal disease, will systemize the stages of the clinical examination, and will collect the anamnesis. Establishing indications for paraclinical investigations, arguing their need. |
| 3.1. | Data recording and patient history | Working with the medical record and systematisation of the stages regarding the collection of the anamnesis and the clinical examination. | Assessing the correctness and succession of the analysis. | During the semester |
| 3.2. | Appreciationof the findings indicated by radiographic examination. | The student should study the particularities of the radiographic examination and argue for the need regarding each type of radiographic exam. | Assessing the correctness of the information described by the student. | During the semester |
| 3.5. | Project preparation. | Students will prepare information on the selected topic from the Thematic Plan with Power Point schematic and graphics presentations. | Evaluating the quality of the selected material, the design of the project and the ability to reproduce the information. | During the semester |

1. **METHODOLOGICAL SUGGESTIONS FOR TEACHING-LEARNING-EVALUATION**
* **Teaching and learning methods used**

The teaching of the periodontics discipline uses different methods and teaching techniques, oriented towards the efficient acquisition and achievement of the objectives of the didactic process. The course provides lectures (lectures), seminars, practical works and individual work. Courses are held in semester VIII and IX by the course holder. The following forms of training are used in the practical work: frontal, individual activity, group discussions, clinical case simulation situations, case study. As a teaching aid, the specialized manuals available in the university library, the methodological recommendations of the department's staff, tables, schemes, information sources in electronic format, national and international professional websites, etc. are available. Students receive individual assignments that are presented for group discussions, which subsequently assess the quality of individual work and practical skills. In order to acquire the didactic material and team-building skills during the semester the students perform a mini-research in the field, the results of which are presented in the seminars and practical lessons, organized in the last month of both semesters.

Recommended learning methods are: learning theoretical material after lecture and manually; observation - identifying the characteristic features of doctor-patient communication; analysis - when using the clinical and paraclinical methods of the patients, as well as the methods and the stages of prevention; comparison - analysis by comparison of the methods of collecting the anamnesis, of the paraclinical examination methods according to their advantages and disadvantages; elaboration of the algorithm - selection of the mandatory elements and elaboration of the proper consultation algorithm for the patient; modeling - identifying and selecting the elements needed to model clinical situations when consulting patients, formulating conclusions, arguing and making the final decision.

* **Applied didactic strategies / technologies**. Face-to-face, individual, sessions, group discussions, clinical case analysis, team building, clinical exam simulation, mini-research, comparative analysis, Power Point presentations.
* **Evaluation methods:**

**Current evaluation:** Current checks during seminars and practical works, presentation of the treated clinical case. For individual work done during the semester the student is evaluated, the grade is included in the semester. At the end of the semester, the average annual grade is calculated on the basis of the clinical and semester presentations.

**Final evaluation:** The course divided into two semesters ends with a colloquium in the 8th semester and an exam in the 9th semester (completion of the discipline). The note at the colloquium is based on the annual average score. Notes 5 and above are equivalent to "attested", which will be passed to the notes book. The average annual score will be expressed in numbers according to the scoring scale indicated in the table.

**Algorithm for calculating the final grade at the end of the discipline:**

Complex 2-step exam: control test and oral interview according to tickets. The final weighted score is calculated on the basis of positive grades (≥5) of the annual average, calculated at the end of the discipline study - 50%; from test-control - 20% and oral interview - 30%.The average annual score is calculated from the average grade per semester, consisting of theoretical part, practical part and totalization.The average annual mark and the marks of all final stages of testing (test and oral answer) - are expressed in numbers according to the scoring scale (according to the table) and the final mark obtained is expressed in two decimal digits, which will be entered in the notes book .

**Method of rounding up the grades at the evaluation steps**

| Intermediate note grid (annual average, grades from the exam stages) | National scoring system | EquivalentECTS |
| --- | --- | --- |
| **1,00-3,00** | **2** | **F** |
| **3,01-4,99** | **4** | **FX** |
| **5,00** | **5** | **E** |
| **5,01-5,50** | **5,5** |
| **5,51-6,00** | **6** |
| **6,01-6,50** | **6,5** | **D** |
| **6,51-7,00** | **7** |
| **7,01-7,50** | **7,5** | **C** |
| **7,51-8,00** | **8** |
| **8,01-8,50** | **8,5** | **B** |
| **8,51-8,00** | **9** |
| **9,01-9,50** | **9,5** | **A** |
| **9,51-10,0** |  |

*Note: The failure to present the exam without good reason is recorded as "absent" and is equivalent to 0 (zero). The student is entitled to 2 repeated claims of the unsuccessful exam.*

**X. RECOMMENDED BIBLIOGRAPHY:**

*A. Obligatory:*

1. Valerie Clerehugh, Aradhna Tugnait, Robert J. Genco. Periodontology at a Glance. Wiley- Blackwell

2. Fermin A. Carranza, Michael G. Newman. Clinical Periodontology. 8th Edition. W.B. Saunders Company. 1996

*B. Suplimentary:*

 1. Nicolaiciuc, Valentina. Practical guide : clinical practical lessons for 4th year of study 8th semester : subject : Periodontal disease / V. Nicolaiciuc ; State University of Medicine and Pharmacy "Nicolae Testemitanu", the Department of Therapeutical Dentistry. - Chişinău : Medicina, 2012

 2. Fuhrmann, Andreas. Dental radiology : a contemporary guide to dental radiology for students and practitioners / Andreas Furmann. - Stuttgart : Thieme, 2015