



# CD 8.5.1 DISCIPLINE CURRICULUM

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## FACULTY OF STOMATOLOGY

### STUDY PROGRAM 0911.1 STOMATOLOGY

### CHAIR OF STOMATOLOGICAL PROPAEDEUTICS „PAVEL GODOROJA”

#### APPROVED

at the meeting of the Committee for Quality Assurance and the evaluation of the Curriculum Faculty of Stomatology

Minutes No. 2 of 13.02.2018

Committee President, PhD., DMS.,

Associate professor

Stepco Elena

#### APPROVED

at the Council meeting of the Faculty of Stomatology

Minutes No. 6 of 20.07.2018

Dean of Faculty of Stomatology, PhD.,

DHMS., Professor,

Ciobanu Sergiu

#### APPROVED

at the meeting of the chair of Stomatological Propaedeutics „Pavel Godoroja”

Minute nr. 3 of 20.10.2017

Head of chair, PhD., DHMS., Associate professor

Uncuța Diana

## SYLLABUS

### DISCIPLINE: MODERN PRECLINICAL MANIPULATION IN PRODUCING DIFFERENT PROSTHETIC CONSTRUCTIONS

#### Integrated studies

Type of course: **Optional discipline**

Chișinău, 2017



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### I. PRELIMINARIES

• **General presentation of the discipline: the place and role of the discipline in the formation of the specific competences of the vocational / specialty training program**

“Modern preclinical manipulation of producing various prosthetic constructions” is a compartment of Dental Propedeutics and has an important role in the fabrication of the clinical and technical stages of making dental prostheses.

The passing of the students' training from the preclinical stage to the clinical stage of dentistry is done by familiarizing them with the modern materials and techniques for preparation of the prosthetic constructions for making various indirect restorations.

Doctor's guidance and knowledge of modern methods of preparation of various prosthetic constructions within the dental office is an important stage in the development of future specialists and is an indispensable compartment of modern dentistry.

#### **Mission of the curriculum (purpose) in vocational training**

The optional discipline "Preclinical Manufacturing of Modern Preparation of Various Prosthetic Constructions" aims to integrate the knowledge acquired by future dentists to the compulsory disciplines of dental care in order to provide effective, harmless dental care in prosthetic treatment with various types of prostheses.

At the same time, "Preclinical manners of modern preparation of various prosthetic constructions", within the discipline, are to develop the skills and clinical thinking of the students oriented towards the accumulation of prosthetic skills and abilities in determining the optimal methods of prophylaxis, diagnosis and treatment of the dental system dysfunctions.

**Languages of teaching:** romanian, russian and english.

- **Beneficiaries:** students of the second year, the faculty of Dentistry.

### II. DISCIPLINE ADMINISTRATION

Code of discipline	<b>S.03.A.037</b>		
Name of discipline	<b>Modern preclinical manipulation of producing various prosthetic constructions</b>		
Responsible of discipline	<b>Bajurea Nicolae, PhD., DMS., Associate professor</b> <b>Uncuța Diana, PhD., DHMS., Associate professor, Head of the department</b>		
Year	<b>II</b>	Semester	<b>III</b>
Total number of hours, including:			<b>30</b>
Lectures	<b>20</b>	Practical courses	<b>-</b>
Seminars	<b>-</b>	Individual work	<b>10</b>
Evaluation form	<b>C</b>	Number of credits	<b>1</b>

### III. THE TRAINING OBJECTIVES OF THE DISCIPLINE



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- **At the level of knowledge and understanding:**
  - ✓ to be familiar with the notion of technological process of prosthetic constructions;
  - ✓ to know the types of prostheses and their purpose;
  - ✓ to know the technological process of casting alloys and their specific equipment;
  - ✓ to know the technological process of acrylic and composite polymerization;
  - ✓ to know the technological process of producing ceramic constructions;
  - ✓ to know the modern technological process of ceramic constructions : Dicor, Cerestore, In Ceram, CAD-CAM.
  - ✓ to know how to use the necessary materials, tools and equipment for the technological process specific to the various prosthetic constructions;
  - ✓ to be able to differentiate the advantages and disadvantages of conventional and modern prosthetic constructions.
- **At application level:**
  - ✓ to distinguish the prosthetic constructions and their indications;
  - ✓ to be able to perform the clinical and technical stages of prosthetic construction in the case of fixed prosthesis on the phantom model;
  - ✓ to be able to perform the clinical and technical stages of prosthetic construction in the case of removable partial denture on the phantom models;
  - ✓ to be able to perform the clinical-technical stages of prosthetic construction in the case of complete denture on the phantom model;
- **At the integration level:**
  - ✓ to appreciate the level of correctness and fidelity of prosthetic construction;
  - ✓ to choose the necessary material for producing the prosthetic construction according to its purpose;
  - ✓ to ensure respect for professional ethics and deontology.

### IV. PRECONDITIONS AND EXIGENCIES

Knowing the notion of technological process of prosthetic constructions. Knowledge about the types of prostheses and their purpose. Knowledge of the technological process of casting alloys and their specific equipment. Knowledge of the technological process of acrylic and composite polymerization. Knowledge of the technological process of producing ceramic constructions. Knowledge about the modern technological process of ceramic constructions : Dicor, Cerestore, In Ceram, CAD-CAM. Knowledge about the necessary materials, tools and equipment for the technological process specific to the various prosthetic constructions. Knowing and differentiate the advantages and disadvantages of conventional and modern prosthetic constructions.

### V. THEMES AND ORIENTATIVE DISTRIBUTION OF HOURS

Nr. d/o	THEME	Number of hours	
		Course	Individual
<b>Modern preclinical manipulation of producing various prosthetic constructions</b>			
1.	Prosthetic construction. Notion. Short history.	2	1
2.	Classification of prostheses. The description. Indications.	2	1
3.	Techniques of producing the fixed prostheses.	2	1
4.	The technological process of producing the metal prostheses. Casting.	2	1
5.	The technological process of producing the ceramic prostheses.	2	1



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Nr. d/o	THEME	Number of hours	
		Course	Individual
6.	The technological process of producing the acrylic prostheses. Polymerisation process.	2	1
7.	Tehniques of producing the removable partial prostheses.	2	1
8.	Tehniques of producing the complete denture.	2	1
9.	Tehniques of producing the fixed implant-supported prostheses.	2	1
10.	Techniques of producing the movable implant-supported prostheses.	2	1
<b>Total</b>		<b>20</b>	<b>10</b>

### VI. REFERENT OBJECTIVES AND CONTENT UNITS

Objectives	Content units
<b>Modern preclinical manipulation of producing various prosthetic constructions</b>	
<ul style="list-style-type: none"> <li>✓ to be familiar with the notion of technological process of prosthetic constructions;</li> <li>✓ to know the types of prostheses and their purpose;</li> <li>✓ to know the technological process of casting alloys and their specific equipment;</li> <li>✓ to know the technological process of acrylic and composite polymerization;</li> <li>✓ to know the technological process of producing ceramic constructions;</li> <li>✓ to know the modern technological process of ceramic constructions : Dicor, Cerestore, In Ceram, CAD-CAM;</li> <li>✓ to know how to use the necessary materials, tools and equipment for the technological process specific to the various prosthetic constructions;</li> <li>✓ to be able to differentiate the advantages and disadvantages of conventional and modern prosthetic constructions.</li> </ul>	<p>The notion of technological process of prosthetic constructions;</p> <p>Classification of prosthetic construction;</p> <p>Modern methods in producing the prostheses on different special elements: zirconium, noble metals, titanium, sintered gold;</p> <p>The technique of producing the metallic framework on the duplicating cast;</p> <p>The devices and instruments used in a modern dental laboratory: dental surveyor, duplicating flasks, vacuum-mixer, heat sources (high-frequency or oxygen-acetylene current), heating furnaces, casting machines, sandblasters, galvanoplasty, wax prefabricated elements;</p> <p>The modern technological process of ceramic constructions : Dicor, Cerestore, In Ceram, CAD-CAM;</p> <p>The materials, tools and equipment for the technological process specific to the various prosthetic constructions.</p>

### VII. PROFESSIONAL SPECIFIC (SC) AND TRANSVERSAL (TC) COMPETENCES AND STUDY OUTCOMES

#### Professional competencies (specific) (SC)

**SC1:** Knowledge of the theoretical skills of modern materials and techniques for producing modern



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prosthetic constructions.

**SC2:** The phantom simulation of the clinical and paraclinical examination of patients with different clinical forms of dental crown lesions and edentulous arches and making of various practical workings for producing varieties of modern prosthetic restorations.

**SC3:** Selection of materials and techniques of producing modern prostheses depending on the clinical situation and the type of treatment.

**SC4:** Evaluation and description of manufacturing techniques of prostheses in every nosological form of the stomatognathic system.

**SC5:** Understanding the modern techniques of producing various prosthetic constructions and their practical application as described.

**SC6:** Demonstration and application of knowledge gained in the evaluation of prosthetic area for modern techniques of producing various indirect restorations.

### **Transverse competencies (TC)**

**TC1:** Applying professional evaluation standards, acting according to professional ethics, as well as the provisions of the legislation. Promoting logical reasoning, practical applicability, assessment and self-assessment in decision-making.

**TC2:** Performing activities and exercising the roles specific to team work within the endodontic office / department. Promoting the spirit of initiative, dialogue, cooperation, positive attitude and respect for others, empathy, altruism and continuous improvement of their own activities;

**TC3:** Systematically assessing personal skills, roles and expectations, applying self-assessments to learned processes, acquired skills and professionalism needs, effective use of language skills, knowledge in information technologies, research and communication skills to deliver quality services and adapting to the dynamics of policy requirements in health and for personal and professional development.

### **Study finalizations**

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

- ✓ to know how to use the materials, tools and equipment necessary for the technological process specific to the various prosthetic constructions;
- ✓ to be able to differentiate the advantages and disadvantages of conventional and modern prosthetic constructions;
- ✓ to know the techniques of making fixed prostheses;
- ✓ to be familiar with the techniques of making movable partial prostheses;
- ✓ to know the techniques of making the complete denture;
- ✓ to know the particularities of producing the implant-supported prosthesis.



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### VIII. STUDENT'S SELF-TRAINING

Nr.	Expected product	Implementation strategies	Assessment criteria	Implementation terms
1.	Working with informational sources	Reading the lecture or the material in the manual on the subject. Reflecting on the topic in the questions. Knowing and selecting additional information sources on the topic. Reading the text carefully and describe the essential content. Wording of generalizations and conclusions regarding the importance of the theme / subject.	The ability to extract the essentials. Interpretative skills. The ability to analyze and communicate the material accumulated on its own.	During the semester
2.	Solving case problems	Solving case problems, with argumentation of conclusions at the end of each practical lessons. Verification of the finalities and appreciation of their achievement. Selection of additional information, using electronic addresses and additional bibliography.	The quality of solving problems of situation 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.	<b>Evaluation of perception (basic knowledge) in clinical and paraclinical examination of patients.</b> <b>Evaluation of methods of asepsis and antisepsis in endodontic cabinet / section.</b> Each student will complete the patient's medical record, systematize the stages of the clinical examination and collect the anamnesis. Establish indications for paraclinical investigations, arguing their need.			



### IX. METHODOLOGICAL SUGGESTION FOR TEACHING-LEARNING-ASSESSMENT

#### ✓ Teaching and learning methods used

When teaching the optional discipline **Preclinical manipulation of producing various prosthetic constructions**, different teaching methods and methods are used, oriented towards the efficient acquisition and achievement of the objectives of the didactic process. Course classes (lectures) are provided for the discipline. Courses are held in the fourth semester by the course owner. 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.

Learning methods are recommended: learning theoretical material after lecture and manually; observation - identifying the characteristic features of doctor-patient communication; analysis - in the use of clinical and paraclinical examination methods of patients, as well as methods and stages of prevention, asepsis and antisepsis; 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 patient consultation algorithm; modeling - identifying and selecting the elements needed to model situations when consulting patients, formulating conclusions, argumenting, and making the final decision.

#### ✓ *Applied teaching strategies / technologies (specific to the discipline)*

Face-to-face, individual, brainstorming, group discussion, clinical case analysis, teambuilding, clinical exam simulation, mini-research, comparative analysis.

#### ✓ *Methods of assessment (including the method of final mark calculation)*

#### ✓ **Final:** colloquy.

### X. RECOMENDED LITERATURE:

#### A. Mandatory:

1. Lecture materials.
2. Nicolae V. Restaurări protetice în implantologia orală. Sibiu,2009.
3. Bratu D., Nussbaum R. Bazele clinice și tehnice ale protezării fixe. București, 2009.
4. Bratu D., Bratu E., Antonie S. Restaurarea edentațiilor parțiale prin proteze mobilizabile. București, 2008.
5. Misch C. Contemporary Implant Dentistry, 2007, 626p.

#### B. Suplimentary:

1. Sabău Mariana, Nicolae Vasile, Smarandache Andrea, Dumitra Dana, Sas Albertina. Tratatamentul edentației totale: clasic și modern. Sibiu 2009.