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**Federal State Autonomous Educational Institution of Higher Education  
PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA  
NAMED AFTER PATRICE LUMUMBA  
RUDN University  
Institute of Medicine**

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educational division (faculty/institute/academy) as higher education programme developer

## **COURSE SYLLABUS**

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**Prosthodontics (complex prosthetics)**  
course title

**Recommended by the Didactic Council for the Education Field of:**

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**31.05.03 Dentistry**  
field of studies / speciality code and title

**The course instruction is implemented within the professional education programme of higher education:**

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**Dentistry**  
higher education programme profile/specialisation title

**2025**

## 1. COURSE GOAL(s)

The goal of the course "Prosthodontics (complex prosthetics)" is to train a dentist who is able to diagnose and plan the prosthetic stage of the complex treatment of patients with diseases of the dentition, taking into account the individual characteristics of the disease and the age of the patient.

## 2. REQUIREMENTS FOR LEARNING OUTCOMES

Mastering the course (module) "Prosthodontics (complex prosthetics)" is aimed at the development of the following competences /competences in part: GC-1, GPC-5, GPC-6, PC-1, PC-2, PC-6.

*Table 2.1. List of competences that students acquire through the course study*

| Competence code | Competence descriptor                                                                                                  | Competence formation indicators (within this course)                                                                       |
|-----------------|------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| GC-1            | Being able to implement critical analysis of problem situations based on systems approach, develop an action strategy. | GC-1.1. Analyzing the problem situation as a system identifying its components and links between them.                     |
| GPC-5           | Being able to examine a patient to determine a diagnosis while solving professional tasks                              | GPC-5.1. Gathering anamnesis by analyzing the patient's complaints, making a physical examination at a dental appointment. |
|                 |                                                                                                                        | GPC-5.2. Formulating a preliminary diagnosis and deciding on laboratory and instrumental examinations of a dental patient. |
|                 |                                                                                                                        | GPC-5.3. Compiling medical documentation for a dental patient in accordance with regulatory requirements.                  |
|                 |                                                                                                                        | GPC-5.8. Conducting differential diagnosis with other diseases/conditions, including the urgent ones.                      |
|                 |                                                                                                                        | GPC-5.9. Making a diagnosis according to the current international classification of diseases and health problems.         |

|       |                                                                                                                      |                                                                                                                                                                                                                                                                                                               |
|-------|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GPC-6 | Being able to prescribe non-drug and drug treatment, monitor its efficacy and safety when solving professional tasks | GPC-6.1. Developing a plan for dental disease treatment considering the diagnosis, age, and clinical picture in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care considering the medical care standards.  |
|       |                                                                                                                      | GPC-6.2. Selecting medical products (including dental materials) for drawing up a comprehensive plan for dental disease treatment. Following up the treatment of a patient.                                                                                                                                   |
| PC-1  | Being able to make an examination of a patient to determine a diagnosis.                                             | PC-1.1. Making an initial examination and/or reexamination of a patient to make a preliminary diagnosis.                                                                                                                                                                                                      |
|       |                                                                                                                      | PC-1.2. Receiving information from patients (their relatives/legal representatives); conducting a questionnaire survey of patients regarding their general health status; identifying concomitant diseases to make a preliminary diagnosis.                                                                   |
|       |                                                                                                                      | PC-1.3. Detecting if patients have dentoalveolar, facial anomalies, deformities and prerequisites for their development, defects in the crowns of teeth and dentition based on the patient examination; laboratory, instrumental, and additional examinations in order to make a preliminary/final diagnosis. |
|       |                                                                                                                      | PC-1.4. Detecting if patients have risk factors for oncopathology (including various background processes, precancerous conditions) based on laboratory, instrumental and additional examinations to make a preliminary/final diagnosis.                                                                      |
|       |                                                                                                                      | PC-1.5. Making a preliminary/final diagnosis based on the patient examination; laboratory and instrumental examinations.                                                                                                                                                                                      |

|      |                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PC-2 | Being able to prescribe, monitor the efficacy and safety of non-drug and drug treatment                                                                                                                      | PC-2.6. Providing prosthetic treatment for persons with defects in teeth, dentition within the temporization procedure, rehabilitation of single defects in the dentition, dental prostheses of up to three units (excluding dental implants prosthetics), partial and complete removable laminar denture using modern treatment methods approved for use in medical practice. |
| PC-6 | Being able to analyze and present in public medical information based on evidence-based medicine, participate in scientific research, introduce new methods and techniques aimed at protecting public health | PC-6.1. Searching for medical information based on evidence-based medicine, interpreting data from scientific publications and/or preparing a presentation to make medical information, the results of scientific research public.                                                                                                                                             |

### 3. COURSE IN HIGHER EDUCATION PROGRAMME STRUCTURE

The course refers to the core/variable/elective\* component of (B1) block of the higher educational programme curriculum.

\* - Underline whatever applicable.

Within the higher education programme students also master other (modules) and / or internships that contribute to the achievement of the expected learning outcomes as results of the course study.

*Table 3.1. The list of the higher education programme components/disciplines that contribute to the achievement of the expected learning outcomes as the course study results*

| Competence code | Competence descriptor                                                                                                      | Previous courses/modules*                                                                                                                              | Subsequent courses/modules*                                                                                                                                          |
|-----------------|----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CC-1.           | Able to carry out a critical analysis of problem situations based on a systematic approach, to develop an action strategy. | <ul style="list-style-type: none"> <li>• Cariesology and the disease of hard dental tissues.</li> <li>• Prosthodontics (simple prosthetics)</li> </ul> | <ul style="list-style-type: none"> <li>• Prosthodontics (complex prosthetics)</li> <li>• Gnathology and functional diagnostics of temporomandibular joint</li> </ul> |
| GPC-5.          | Able to conduct a patient examination in order to establish a diagnosis in solving professional problems                   | <ul style="list-style-type: none"> <li>• Cariesology and the disease of hard dental tissues.</li> <li>• Prosthodontics (simple prosthetics)</li> </ul> | <ul style="list-style-type: none"> <li>• Prosthodontics (complex prosthetics)</li> <li>• Gnathology and functional diagnostics of temporomandibular joint</li> </ul> |

|        |                                                                                                                                                                                                             |                                                                                                                                                        |                                                                                                                                                                      |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GPC-6. | Able to prescribe, monitor the effectiveness and safety of non-drug and drug treatment in solving professional problems                                                                                     | <ul style="list-style-type: none"> <li>• Cariesology and the disease of hard dental tissues.</li> <li>• Prosthodontics (simple prosthetics)</li> </ul> | <ul style="list-style-type: none"> <li>• Prosthodontics (complex prosthetics)</li> <li>• Gnathology and functional diagnostics of temporomandibular joint</li> </ul> |
| PC-1.  | Able to conduct examination of the patient to establish a diagnosis.                                                                                                                                        | <ul style="list-style-type: none"> <li>• Cariesology and the disease of hard dental tissues.</li> <li>• Prosthodontics (simple prosthetics)</li> </ul> | <ul style="list-style-type: none"> <li>• Prosthodontics (complex prosthetics)</li> <li>• Gnathology and functional diagnostics of temporomandibular joint</li> </ul> |
| PC-2.  | Capable of prescribing, monitoring the efficacy and safety of non-drug and drug treatments                                                                                                                  | <ul style="list-style-type: none"> <li>• Cariesology and the disease of hard dental tissues.</li> <li>• Prosthodontics (simple prosthetics)</li> </ul> | <ul style="list-style-type: none"> <li>• Prosthodontics (complex prosthetics)</li> <li>• Gnathology and functional diagnostics of temporomandibular joint</li> </ul> |
| PC-6.  | Able to analyze and publicly present medical information based on evidence-based medicine, to participate in scientific research, to introduce new methods and techniques aimed at protecting public health | <ul style="list-style-type: none"> <li>• Cariesology and the disease of hard dental tissues.</li> <li>• Prosthodontics (simple prosthetics)</li> </ul> | <ul style="list-style-type: none"> <li>• Prosthodontics (complex prosthetics)</li> <li>• Gnathology and functional diagnostics of temporomandibular joint</li> </ul> |

\* To be filled in according to the competence matrix of the higher education programme.

#### 4. COURSE WORKLOAD AND ACADEMIC ACTIVITIES

The total workload of the course "Prosthodontics (complex prosthetics)" 8 credits (288 academic hours).

*Table 4.1. Types of academic activities during the periods of higher education programme mastering (**full-time training**)\**

| Type of academic activities                                   |                | Total academic hours | Semesters/training modules |           |            |
|---------------------------------------------------------------|----------------|----------------------|----------------------------|-----------|------------|
|                                                               |                |                      | 7                          | 8         | 9          |
| <b>Classes (total) ac.h.</b>                                  |                | <b>187</b>           | <b>51</b>                  | <b>51</b> | <b>85</b>  |
| Including:                                                    |                |                      |                            |           |            |
| Lectures (LC)                                                 |                |                      |                            |           |            |
| Lab work (LW)                                                 |                | 187                  | 51                         | 51        | 85         |
| Seminars (workshops/tutorials) (S)                            |                |                      |                            |           |            |
| <i>Self-studies</i>                                           |                | 76                   | 18                         | 15        | 32         |
| <i>Evaluation and assessment (exam/passing/failing grade)</i> |                | 33                   | 3                          | 6         | 27         |
| <b>Total course workload</b>                                  | academic hours | <b>288</b>           | <b>72</b>                  | <b>72</b> | <b>144</b> |
|                                                               | credits        | <b>8</b>             | <b>2</b>                   | <b>2</b>  | <b>4</b>   |

\* To be filled in regarding the higher education programme correspondence training mode.

## 5. COURSE CONTENTS

Table 5.1. Course contents and academic activities types

| Course module title                                                                 | Course module contents (topics)                                                                                                                                                                                                                                                                                                                                                                                 | Academic activities types |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Section 1.<br>Replacement of dentition defects with fixed prosthodontics structures | Topic 1.1. Partial teeth absence. Methods of patient examination. Clinical and biomechanical justification of the use of dental bridges. Indications and contraindications for the use of bridges. Criteria for choosing the number of abutment teeth. Types of dental bridges. Fitting and fixation the bridges. Quality criterias of prosthetic treatment with bridges. Instruction for dental bridges usage. | LW                        |
|                                                                                     | Topic 1.2. Clinical and lab stages of prosthetic treatment with bridges.                                                                                                                                                                                                                                                                                                                                        |                           |
|                                                                                     | Topic 1.3. Peculiarities of abutment teeth preparation while manufacturing a bridge.                                                                                                                                                                                                                                                                                                                            |                           |
|                                                                                     | Topic 1.4 Fitting and fixation of a bridge. . Quality criterias of prosthetic treatment with bridges. Instruction for dental bridges usage.                                                                                                                                                                                                                                                                     |                           |
| Section 2.<br>Removable denture treatment                                           | Topic 2.1. Examination of patient with partial teeth absence for future planing removable prostheses. Indications and contraindications for removable denture.                                                                                                                                                                                                                                                  | LW                        |
|                                                                                     | Topic 2.2. Types of removable dentures in case of partial absence of teeth. Clinical and laboratory stages of prosthetic treatment with removable dentures. Fixation methods for partial lamellar dentures, quality criteria.                                                                                                                                                                                   |                           |
|                                                                                     | Topic 2.3. Clasp dentures. Indications for use, basic structural elements. Clinical and laboratory stages of their manufacturing. Quality criteria. Rules for the use and care of lamellar and clasp dentures.                                                                                                                                                                                                  |                           |

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|--------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| Section 3.<br>Prosthetic treatment of periodontal diseases                                                                                       | Topic 3.1. Etiology, pathogenesis, classification, clinical manifestations of periodontal disease. Modern methods of diagnosis in the clinic of prosthetic dentistry.                                                                                                                                                                      | LW |
|                                                                                                                                                  | Topic 3.2. Clinical and biomechanical substantiation of the orthopedic stage of complex treatment of patients with periodontal disease, especially the design of medical devices and prostheses.                                                                                                                                           |    |
|                                                                                                                                                  | Topic 3.3. Clinical and laboratory stages of manufacturing splinting structures.                                                                                                                                                                                                                                                           |    |
| Section 4.<br>Prosthetic treatment of increased abrasion                                                                                         | Topic 4.1. Etiology, pathogeny, classification, and clinical symptoms of excessive attrition of teeth. Diagnostic aids and prosthetic restoration of excessive attrition of teeth.                                                                                                                                                         | LW |
| of hard tissues of teeth                                                                                                                         | Topic 4.2. Methods of preparing the oral cavity for prosthetics with excessive tooth attrition.                                                                                                                                                                                                                                            | LW |
|                                                                                                                                                  | Topic 4.3. Methods of prosthetic treatment of patients with various clinical manifestations of tooth attrition.                                                                                                                                                                                                                            |    |
| Section 5.<br>Prosthetic treatment of deformations and anomalies of dentition and bite.                                                          | Topic 5.1. Etiology, pathogenesis, classification, clinical manifestations of deformation of the dentition and bite in the partial absence of teeth. Modern methods of diagnosis.                                                                                                                                                          | LW |
|                                                                                                                                                  | Topic 5.2. Methods of elimination of deformation and justification of tactics of management of patients with this pathology. Stages of treatment.                                                                                                                                                                                          |    |
| Section 6.<br>Prosthetic treatment of patients with dentures supported by implants                                                               | Topic 6.1. Indications and contraindications to the use of implant supported denturs. Features of clinical and laboratory stages of prosthetic treatment with removable and fixed implant-supported dentures.                                                                                                                              | LW |
|                                                                                                                                                  | Topic 6.2. Features of clinical and laboratory stages of prosthetic treatment with removable implant-supported dentures.                                                                                                                                                                                                                   |    |
|                                                                                                                                                  | Topic 6.3. Features of clinical and laboratory stages of prosthetic treatment with implant-supported fixed dentures.                                                                                                                                                                                                                       |    |
| Section 7.<br>Prosthetic treatment of patients with somatic diseases. Prosthetic treatment of patients with chronic diseases of the oral cavity. | Topic 7.1. Tactics of prosthetic treatment patients with somatic pathology (CVS, GIT, endocrine diseases, cancer of oral cavity, mental diseases, infection diseases (HIV, tuberculosis, candida), chronic diseases of skin and mucous of oral cavity and lips) who are in need of prosthetic rehabilitation.                              | LW |
|                                                                                                                                                  | Topic 7.2. Intolerance of materials and structures of dentures. Diagnosis, prevention, features of secondary prosthetics.                                                                                                                                                                                                                  |    |
| Section 8.<br>Phonetic aspects of prosthetic treatment with the use of removable and fixed dental and jaw prostheses                             | Topic 8.1. Fundamentals of phonetics and articulation in prosthetic dentistry. Influence of design features of removable denture bases, location of posterior teeth, crown height, palatal surface shape, interalveolar distance on sound pronunciation disorders. The main methods for assessing speech function in prosthetic dentistry. | LW |

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|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| Section 9.<br>Aesthetic aspects<br>of prosthetics of<br>teeth and dentition | <p>Topic 9.1. Basic aesthetic proportions of the face, teeth and dentition. Methods for assessing the quality of dentures in an aesthetically significant area: photo and video diagnostics. Modern methods for assessing the parameters of color and transparency of teeth.</p> <p>Characteristics of modern denture materials for aesthetic constructions</p> <p>Methods of computer planning of complex dental functional and aesthetic rehabilitation in the smile area, DSD technique, "white and pink" aesthetics of a smile.</p> <p>Modern methods of diagnostics and prosthetic treatment of patients with teeth discoloration. .</p> | LW |
|                                                                             | <p>Topic 9.2. Application of "wax up" and "mock-up" techniques in aesthetic prosthetics. Computer technologies for manufacturing prototypes of dentures.</p> <p>Features of fixation of dentures from the standpoint of aesthetics</p>                                                                                                                                                                                                                                                                                                                                                                                                        | LW |

\* - to be filled in only for **full**-time training: *LC* - lectures; *LW* - lab work; *S* - seminars.

## 6. CLASSROOM EQUIPMENT AND TECHNOLOGY SUPPORT REQUIREMENTS

*Table 6.1. Classroom equipment and technology support requirements*

| Type of academic<br>activities | Classroom equipment | Specialised educational / laboratory<br>equipment, software, and materials<br>for course study<br>(if necessary) |
|--------------------------------|---------------------|------------------------------------------------------------------------------------------------------------------|
|--------------------------------|---------------------|------------------------------------------------------------------------------------------------------------------|



|          |                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lab-work | An auditorium for laboratory work, individual consultations, current control, and intermediate certification, equipped with a set of specialized furniture and equipment. | <p>12 sets of specialized furniture - tables for simulators and 2 dental simulators "Saratoga S.p.a" (retractable blocks of a doctor [2 M4 turbine hoses] and an assistant [multifunctional gun, saliva ejector, vacuum cleaner], multifunctional pedal, water and compressed air supply system for simulators, aspiration Venturi system with a centralized electric pump, FRASAKO dental phantoms (Germany) on a minitorso with an articulator, models of the upper and lower jaws of the ChVN 28 type (Zarnitsa, Russia) with a face mask and mechanical adjustment of the phantom position along 2 axes in the form of a long table for 12 vis-a-vis places and 2 places for a four-seat module in the form of a "chamomile." Wooden chair with a back on wheels - 14 pcs.</p> <p>Special sink made of stainless steel with two sinks and a gypsum trap.</p> <p>Gypsum tables for 14 jobs.</p> <p>Mobile waste bin with 250 liter lid.</p> <p>-School school desk double -15,</p> <p>- chair for student 14 and teacher 1,</p> <p>- cabinet for storage of dental materials and instruments -2 pcs,</p> <p>- glass case for visual aids,</p> <p>-LCD panel,</p> <p>- a personal computer with Internet access,</p> <p>The chair is dental.</p> <p>White magnetic board for drawing with felt-tip pens</p> <p><b><i>Specialized educational/laboratory equipment:</i></b></p> <p>Vibrating table - 4.</p> <p>Trimmer -1.</p> |
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|--|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  | <p>           Vacuum plaster mixer - 2.<br/>           Scales for gypsum-7<br/>           Buckets for plaster and scoops-7<br/>           Apparatus for cleaning and lubricating tips<br/>           "Assistina"-1.<br/>           Steam jet device for cleaning dentures - 1<br/>           Parallelometers -14<br/>           Electric water bath 4<br/>           Dental electric spatula -14.<br/>           Dental drill -14.<br/>           Apparatus for choosing the color of teeth<br/>           "Easyshade"-1<br/>           Apparatus for determining the damping<br/>           capacity of the periodontium Periotest-1.<br/>           Light-curing lamps 14.         </p> <p> <b><i>Toolkit (each semester):</i></b><br/>           Disposable examination kits 14 kits per<br/>           subgroup per semester;<br/>           turbine tips - 14 pcs.,<br/>           straight tips -14,<br/>           Protective screens for a dentist -14<br/>           Silicone flasks for mixing gypsum-14,<br/>           Spatulas for kneading gypsum -14<br/>           Plaster knife - 14<br/>           Dental spatula - 14 pcs.<br/>           Impression spoons number 3 for the upper<br/>           and lower jaws metal perforated by 14.<br/>           Glass for mixing cement - 14<br/>           Spatula for mixing cement-14<br/>           Crown removers of various types -7<br/>           Crampon tongs -14         </p> <p> <b><i>Consumables</i></b><br/>           Clasp wire 2 cm per student in the 8th<br/>           semester.<br/>           Models of the upper and lower jaws ChVN<br/>           28A - 14 sets<br/>           Zarnitsa type teeth for ChVN28A - No. 36,<br/>           No. 34, No. 11 - 1 tooth per student in 7 and<br/>           9 semesters.<br/>           Alginate weight 200 g per student in each<br/>           semester<br/>           Gypsum Grade 2 500 g per student in each<br/>           semester<br/>           Periodontal probes 14.<br/>           Burs for preparation set of 5 Vladmiva<br/>           burs per student in 7th and 9th semesters.<br/>           Articulation paper 100 microns thick - 2<br/>           sheets for each student in each semester.<br/>           C-silicone for impressions - a set of 900<br/>           grams of the main mass and corrective with         </p> |
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|--|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  | <p>a catalyst for each subgroup in 7 and 9 semesters.</p> <p>Water dentin -1 g per student in semester 7.</p> <p>Insulating cotton swabs, 2 per student in the 7th semester.</p> <p>Plastic bridge for teeth 36 and 34 for model ChVN28A - 1 per student in the 7th semester</p> <p>A set of materials for adhesive fixation -1.</p> <p>Flowable composite for temporary splinting of teeth 1g per student in the 8th semester.</p> <p>Set for splinting "Armosplin" 1 per group in the 8th semester.</p> <p>A set of wax blanks for Akker clasps 1 per group in the 8th semester.</p> <p>Dense light-curing composite 1.0 g per student in semester 9</p> <p><b><i>Visual tutorials:</i></b></p> <p>Set of IRIS implant system - 7 per subgroup in the 9th semester</p> <p>Set of Straumann implant system 7 per subgroup in semester 9</p> <p>Plastic models with 2 Straumann implant analogues 7 per subgroup in semester 9</p> <p>Plastic LF models with 4 analogs of IRIS-7 implants per subgroup in the 9th semester</p> <p>Forms with the dental formula of the Infodent -14 program in the 9th semester</p> <p>Forms of odontoparodontograms -14 in the 8th semester</p> <p>Orthopantomograms with periodontal pathology -14 in the 8th semester.</p> <p>Stand with types of tooth preparation for various types of prostheses.</p> <p>A set of materials and devices "Stages of manufacturing a stamped-brazed bridge prosthesis", "Stages of manufacturing a metal-ceramic bridge prosthesis". Phantom model with different types of bridges</p> <p>Non-adjustable articulators (occluders) with models with deformation of the dentition and a bridge-like apparatus for the restructuring of the Popov phenomenon -14 per group in the 9th semester</p> |
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|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lab-work                         | An auditorium for practical work of students with computer training programs, equipped with a set of specialized furniture and computers with Internet access.                                                                                                                                                                                                                                   | 15 workplaces (office tables with computers) with Internet access and Avantis 3D software<br>Software Infodent "Dental Clinic"<br>Software Exokad "Bugel prostheses"<br>LCD panel                                                                                              |
| Dental office №1                 | Dental office of a dental medical institution, provided under an agreement with RUDN University for conducting practical clinical classes for 5th year students, equipped with a dental unit and all necessary equipment, instruments and materials for dental prosthetic treatment in accordance with the Procedure for providing dental care to the adult population of the Russian Federation | Personal computer with Avantis 3D software<br>Software Infodent "Dental Clinic"<br>Apparatus Periotest M<br>Apparatus AFS<br>Semi-adjustable articulator with face bow<br>Alginate and silicone impression materials, sets of metal perforated impression trays, masks, gloves |
| Dental office №2                 | Dental office of a dental medical institution, provided under an agreement with RUDN University for conducting practical clinical classes for 5th year students, equipped with a dental unit and all necessary equipment, instruments and materials for dental prosthetic treatment in accordance with the Procedure for providing dental care to the adult population of the Russian Federation | Personal computer with Avantis 3D software<br>Software Infodent "Dental Clinic"<br>Apparatus Periotest M<br>Apparatus AFS<br>Semi-adjustable articulator with face bow<br>Alginate and silicone impression materials, sets of metal perforated impression trays, masks, gloves |
| For independent work of students | An auditorium for independent work of students (can be used for seminars and consultations), equipped with a set of specialized furniture and computers with access to the EIOS.                                                                                                                                                                                                                 | Avantis 3D software<br>Software Infodent "Dental Clinic"<br>Software Exocad "Bugel prostheses"<br>Educational videos<br>Basic and additional educational materials                                                                                                             |

## 7. RESOURCES RECOMMENDED FOR COURSE STUDY

### *Main readings:*

1. Orthopedic dentistry: textbook / S.D. Arutyunov, E.A. Bragin, S.I. Burlutskaya [and others]; edited by E.S. Kalivradjian, I.Yu. Lebedenko, E.A. Bragin, I.P. Ryzhova. - 3rd ed., Rev. and add.

- M.: GEOTAR-Media, 2020 .-- 800 p. : ill. - ISBN 978-5-9704-5272-1: 2200.00.

2. Technology of dental and maxillary prosthetics [Text]: a guide for practical training / V. N. Trezubov, E. A. Bulycheva, S. D. Arutyunov. - Moscow: Practical Medicine, 2020 .-- 167 p. : ill., color. silt ; 25 cm. - Bibliography: p. 167 (10 titles). - 500 copies - ISBN 978-5-98811-582-3 (in translation)

3. Guide to practical exercises in orthopedic dentistry for 3rd year students / edited by I. Yu. Lebedenko, V. V. Elichev, B. P. Markov / (Authors: S. D. Arutyunov, etc.) allowance. - M.: Practical Medicine, 2006. (Part I. - 432 s).

4. Denture technology: textbook / S.D. Arutyunov, D.M. Bulgakova, M.G. Grishkina [and others]; ed. M.M. Rasulova, T.I. Ibragimova, I. Yu. Lebedenko. - 2nd ed., Rev. and add. - M.: GEOTAR-Media, 2016 .-- 384 p. - ISBN 978-5-9704-3830-5.

[http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn\\_FindDoc&id=475755&idb=0](http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn_FindDoc&id=475755&idb=0)

*Additional readings:*

1. Prosthetic dentistry [Text]: Textbook / V.N. Kopeikin [and others]; Ed. V.N. Kopeikina, M.Z. dental faculties of medical universities). - ISBN 5-225-04598-Mirgazizova. - 2nd ed., Add. - M.: Medicine, 2001 .-- 624 p. : ill. - (Educational literature for students 7: 276.00.56.6 - O-70
2. I.Yu. Lebedenko, T.I. Ibragimov, A.N. Ryakhovsky  
Functional and instrumental research methods in orthopedic dentistry [Text]: Textbook for universities. - M.: Medical Information Agency, 2003. - 128 p. : ill. - ISBN 5-89481-135-X: 260.00.56.6 - L33.
3. Fixed prosthetics: the technology of manufacturing a steel stamped crown [Electronic resource]: Teaching aid / L.S. Sergeeva. - SPb. : Publishing house "Lan", 2018. - 52 p. - (Textbooks for universities. Special literature). - ISBN 978-5-8114-2863-2.
4. Prosthetic dentistry: national leadership / ed. I.Yu. Lebedenko, S.D. Arutyunova, A.N. Ryakhovsky. - GEOTAR - Media, 2016 .-- 824 p.
5. Orthopedic dentistry: national guidelines. Volume 2. / ed. I.Yu. Lebedenko, S.D. Arutyunova, A.N. Ryakhovsky. - GEOTAR - Media, 2022. - 416 p. ISBN: 978-5-9704-6367-3.

***Resources of the information and telecommunications network "Internet":***

1. RUDN ELS and third-party ELS, to which university students have access based on concluded agreements:

- RUDN Electronic Library System - RUDN EBS <http://lib.rudn.ru/MegaPro/Web>

- ELS "University Library Online" <http://www.biblioclub.ru>

- EBS Yurayt <http://www.biblio-online.ru>
- ELS "Student Consultant" [www.studentlibrary.ru](http://www.studentlibrary.ru)
- EBS "Lan" <http://e.lanbook.com/>
- EBS "Trinity Bridge"

## 2. Databases and search engines:

- electronic fund of legal and normative-technical documentation <http://docs.cntd.ru/>
- Yandex search engine <https://www.yandex.ru/>
- Google search engine <https://www.google.ru/>
- abstract database SCOPUS <http://www.elsevierscience.ru/products/scopus/>

*Educational and methodological materials for independent work of students in the development of the discipline of the discipline "Prosthodontics (complex prosthetics)"*

1. Electronic versions of textbooks
2. Presentations on the topics of the classes
3. Video materials

posted in accordance with the current procedure on the discipline page in TUIS!

1. A course of lectures on the discipline "\_\_\_\_\_".
2. Laboratory workshop on the discipline "\_\_\_\_\_" (in the presence of laboratory work).
3. Guidelines for the implementation and execution of a term paper / project in the discipline "\_\_\_\_\_" (if there is a CG / CP).
- 4.

\* - all educational and methodological materials for independent work of students are placed in accordance with the current procedure on the page of the discipline in TUIS!

## **8. ASSESSMENT TOOLKIT AND GRADING SYSTEM\* FOR EVALUATION OF STUDENTS' COMPETENCES LEVEL UPON COURSE COMPLETION**

Evaluation materials and point-rating system\* for assessing the level of competence formation (GC-1, GPC-5, GPC-6, PC-1, PC-2, PC-6.) based on the results of mastering the discipline "Prosthodontics (complex prosthetics)" are presented in the Appendix to this Work Program of the discipline.

\* The assessment toolkit and the grading system are formed on the basis of the requirements of the relevant local normative act of RUDN University (regulations / order).

## **DEVELOPERS:**

Professor of the Department  
of prosthetic dentistry

M. V. Bykova

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position, department

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signature

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name and surname

## **HEAD OF EDUCATIONAL DEPARTMENT:**

of prosthetic dentistry

name of department

I. Yu. Lebedenko

signature

name and surname

**HEAD**

**OF HIGHER EDUCATION PROGRAMME:**

First Deputy Director of Institute

of Medicine

position, department

S.N. Razumova

signature

name and surname

**Fund of assessment tools for carrying out the intermediate certification for the discipline  
(module)**

Table № 1.

| Assessment tools       | Quantity |
|------------------------|----------|
| Control questions      | 70       |
| Tasks in the test form | 140      |
| Case study             | 10       |

**Standard control tasks or other materials necessary for the assessment of knowledge and skills that characterize the stages of the formation of competencies.**

**Tasks in the test form (example) (UC-1, GPC-5,6, PC-1,2,6)**

1. BY KENNEDY'S CLASSIFICATION OF DENTAL DEFECTS TO THE FOURTH CLASS ARE RELETED  
A) dentitions with one-sided end defects  
B) dentitions with double-sided free-end saddles  
C) bounded edentulous teeth of anterior area \*  
D) bounded edentulous teeth of posterior area
  
2. TO THE FIRST CLASS OF DENTAL DEFECTS BY KENNEDY'S CLASSIFICATION KENEDY ARE RELATED  
A) bounded edentulous space of posterior area  
B) one-sided free-end saddle  
C) double-sided free-end saddle\*  
D) bounded edentulous teeth of anterior area
  
3. ONE-SIDED FREE-END SADDLE OF THE DENTITION BY KENNEDY'S CLASSIFICATION REFERS TO  
A) the third class  
B) the first class  
C) the second class\*  
D) the fourth class

Case studies (example) (PC-2, PC-5, PC-6, PC-8, PC-9)

**Case study No1**

Patient A., aged 40, an engineer residing in the city of Solntsevo, Moscow Region, applied to the clinic of prosthetic dentistry with complaints of violation of the shape of the crowns of the upper incisors of the upper jaw with discolorations

From the anamnesis: according to the patient, the change of crowns of the front teeth arose gradually over the past two years. The patient associates this with his addiction to seeds. He



hasn't applied to the dentist before and has never used dentures, hasn't smoked, drinks coffee three times a day.

Objectively: Appearance without pathology, dentition without defects.

Teeth 1.1, 2.1 - change in shape due to the attrition of the enamel and dentin along the cutting edge more from the medial surface; tooth 3.1 - thinning of the enamel of the cutting edge due to the of the oral surface within the limits of 1.5 mm.

The phenomenon of catarrhal gingivitis, the deposition of hard and soft plaque, especially on the incisors of the mandible. Orthognathic occlusion with embrasure vertical diocclusion in the area of incisors - 1 mm, diastema - 0.3 mm.

The task:

1) Suggest additional examination methods.

The answer: EOD, target X-ray image, teeth: 2.1

2) Formulate a diagnosis.

The answer: Increased abrasion of teeth 1.1, 2.1, 3.1, localized form, horizontal I-II degree, gingivitis.

3) Suggest options for complex treatment.

The first stage:

Plan of sanitation measures:

- training in oral hygiene,
  - conducting professional oral hygiene
- The second stage: prosthetics of teeth, dentitions and jaws

Variant 1 – cosmetic filling

Variant 2 – veneers on 1.1, 2.1, cosmetic filling of 3.1

The third stage:

- Elimination of a bad habit (sunflower seeds)
- Regular (at least once a year) monitoring of oral hygiene

### **Test questions / tasks (example) (PC-2, PC-5, PC-6, PC-8, PC-9)**

Name the form of increased abrasion of teeth. Answer: Horizontal, vertical, mixed

### **The procedure, criteria and evaluation scale of intermediate certification**

Students study the discipline "Prosthodontics (complex prosthetics)" in three semesters (VII, VIII, IX).

To assess the quality of mastering the curriculum, a point-rating system and ECTS assessment are used.

Points are accumulated by students in the process of training sessions, monitoring progress and interim assessment during each semester.

Academic discipline is considered mastered if a student has scored more than 50% of the possible number of points. The maximum mark for a discipline studied during one semester is 100 points, regardless of its volume.

A student does not receive these credits if during the course of study, working with a teacher and independently, gaining less than 51 points (out of 100 possible) for each semester.

**Intermediate certification for the discipline in the VII and VIII semesters** is carried out in the form of offset.

Test consists of: testing, evaluation of practical skills of the student and interview. The procedure for intermediate certification:

1. Conducting student testing

2. Evaluation of practical skills
3. Interview

**The test** is held at the end of the study of discipline in the semester.

**In the IX semester, intermediate certification** of the discipline is held in the form of an exam.

**The exam** consists of: testing, assessing the practical skills of the student and the interview.

1. The procedure for intermediate certification:
2. Conducting student testing
3. Evaluation of practical skills
4. Interview

The exam is held during the exam session.

A detailed description of the point-rating system is placed in the fund of assessment tools

The points scored by the student during the semester or at the end of the study of the discipline are translated into assessment according to the rules established in Table No. 9.

Table No. 9

| Score system of knowledge assessment |                          |                           |        |             |
|--------------------------------------|--------------------------|---------------------------|--------|-------------|
| Points of Score –Rating System       | Traditional grades in RF | Points to transfer grades | Grades | ECTS grades |
| 86 – 100                             | 5                        | 95 – 100                  | 5+     | A           |
|                                      |                          | 86 – 94                   | 5      | B           |
| 69 – 85                              | 4                        | 69 – 85                   | 4      | C           |
| 51 – 68                              | 3                        | 61 – 68                   | 3+     | D           |
|                                      |                          | 51 – 60                   | 3      | E           |
| 0 – 50                               | 2                        | 31 – 50                   | 2+     | FX          |
|                                      |                          | 0 – 30                    | 2      | F           |
| 51 – 100                             | Passed                   | 51 – 100                  | Passed | Passed      |

### Description of ECTS grades

#### A — Excellent (5+)

The theoretical content of the course has been mastered completely without gaps. The necessary practical skills with the mastered material have been formed. All the training tasks provided by the training program have been fulfilled, the quality of their implementation is assessed by the number of points close to the maximum. Student has a command of supplementary material that is not included in the training course.

#### B — Very good (5)

The theoretical content of the course has been mastered completely without gaps. The necessary practical skills of working with the mastered material have been basically formed. All the training tasks provided by the training program have been fulfilled, the quality of performance of most of them is assessed by the number of points close to the maximum. Command of some additional information not included in the training course.

#### C — Good (4)

The theoretical content of the course has been mastered completely, without gaps. Some practical skills of working with mastered material have not been sufficiently formed. All training

tasks provided by the training program have been fulfilled, the quality of performance of none of them has been assessed by the minimum number of points. Some types of tasks have been completed with mistakes. Confident knowledge, limited curriculum material.

**D — Satisfactory (3+)**

The theoretical content of the course has been partially mastered, but the gaps are not significant. The necessary practical skills of working with the mastered material have been basically formed. Most of the training tasks included in the training program have been completed. Some of the completed tasks may contain mistakes.

**E — Mediocre (3)**

The theoretical content of the course has been partially mastered. Some practical skills are not formed. Most training tasks provided by the training program have not been fulfilled, or the quality of performance of some of them was estimated by the number of points close to the minimum.

**FX — Conditionally unsatisfactory (2+)**

The theoretical content of the course has been partially mastered. The necessary practical skills are not formed. Most educational tasks provided by the training program have not been fulfilled, or the quality of their implementation is assessed by the number of points close to the minimum. With additional independent work on the course material it is possible to improve the quality of the performance of educational tasks.

**F — Certainly unsatisfactory (2)**

The theoretical content of the course has not been mastered. The necessary practical skills have not been formed. All completed assignments contain blunders. Additional independent work on the course material will not lead to any significant improvement in the quality of the training tasks.