Federal State Autonomous Educational Institution of Higher Education

**I.M. Sechenov First Moscow State Medical University**

**Ministry of Health of the Russian Federation**

**(Sechenov University)**

“Approved”

Academic council of FSAEI HE

I.M. Sechenov First Moscow

State Medical University

(Sechenov University)

“\_\_\_\_\_” of \_\_\_\_\_\_\_\_\_\_\_ 20\_\_\_

Protocol №\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

SYLLABUS OF THE ELECTIVE

\_\_\_ METHODS OF CORRECTION OF ESTHETIC PARAMETERS OF THE TEETH \_\_\_\_\_\_\_\_\_

\_ Basic professional educational program of higher education – specialty program

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_31.05.03 Dentistry \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2021-2022 year of admission

Discipline complexity \_\_\_\_\_\_\_\_ 2.0 \_\_\_\_\_\_\_\_\_ credit units

**1. Goals and objectives of mastering the elective course "Methods of correction of esthetic parameters of the teeth"**

**Purpose:** medical training of a specialist, having deep theoretical knowledge and skills on the modern correction methods of aesthetic parameters of the teeth and being able to provide dental care to the patients with esthetic complaints.

**Objectives of the discipline (to know, to be able to, to demonstrate):**

- mastering advanced diagnostic methods for making and clarifying the diagnosis of discoloration, change of the tooth crown shape and size.

- mastering the basic knowledge on the indications for conservative dental treatment of patients in case of disorders of the aesthetic parameters of the teeth. (color, transparency, size, shape, etc.).

- mastering the planning of therapeutic treatment for patients with diseases of hard tooth tissues;

 **-** formation of students' skills of an interdisciplinary approach in the aesthetic teeth restoration.

- mastering basic skills in aesthetic teeth restoration.

***As a result of mastering the discipline, the student must:***

***Know:***

* the causes of disorders of the aesthetic parameters of the teeth.;
* the criteria for choice of diagnostic methods;
* advanced techniques of treatment in patients with disorders of the aesthetic parameters of the teeth.;
* the indications and contraindications for the use of various treatment methods;

***To be able to:***

* make a diagnosis based on the results of basic and additional methods of examination;
* create a treatment plan for patients with disorders of the aesthetic parameters of the teeth. (size, shape, transparency, color, etc.);
* perform external and intracoronal bleaching methods for the treatment of various discolorations;
* perform an aesthetic restoration of the anterior and posterior teeth using modern resin composite materials.

***Demonstrate the following skills:***

- examination of a dental patient;

- non-invasive caries treatment (remineralizing therapy, infiltration);

- caries and non-carious lesions management;

- vital and non-vital bleaching;

- tooth restoration after endodontic treatment;

**2. Place of the Discipline in the structure of University Educational Program**

2.1. The Discipline is a part of Educational Unit С.3.18 Dentistry

2.2. To study the discipline, following knowledge and skills formed by previous disciplines / practices are necessary:

*- Human anatomy – head and neck anatomy*

*(discipline/practice)*

Knowledge: *anatomical, physiological, age- and gender-associated features of human organism, human body development and growth;*

Competences: *use educational and scientific literature for professional goals;*

Skills: *palpation of main bone structures, mussels and lymph nodes, description topography of human organs, vascular and nerve trunks;*

*-Histology, embryology, cytology – oral cavity histology*

*(discipline/practice)*

Knowledge: *cells’, tissues’ and organs’ structure, physiology and development; cells and tissues examination methods and techniques;*

Competences: *use educational and scientific literature for professional goals; use of laboratory equipment;*

Skills: *analyze histological and physiological condition of human cells, tissues and structures, assess results of cytological and histological studies;*

*-Operative dentistry*

*(discipline/practice)*

Knowledge: *basic methods of dental patient examination; dental instruments for examination, dental deposits removal, cavity preparation and filling and for endodontics; bases of cavities preparation, basis of endodontics;*

Competences: *use educational and scientific literature for professional goals; use of dental instrumentation and equipment;*

Skills: *carious cavity preparation and filling, root canal instrumentation and filling;*

 2.3. Mastering the discipline is necessary for knowledge, abilities and skills, formed by following disciplines:

*- post-graduate course of restorative dentistry*

*(discipline/practice)*

Knowledge: *etiology, pathogenesis, treatment and prevention of main oral diseases;*

Competences: *use educational and scientific literature for professional goals;*

Skills: *modern treatment methods of caries, non-carious lesions, endodontic diseases, periodontal diseases and oral mucosa diseases*

**3. Demands for results of mastering the discipline**

 The goal of mastering the discipline is formation of following professional competences (PC):

|  |  |  |  |
| --- | --- | --- | --- |
| № | Code of PC | Content of PC | As the result of mastering the discipline students must: |
| Know | Be competent | Have skills | Assessment tools\* |
|  | PC-1 | Ability to diagnose dental diseases in children and adults, to make a diagnosis. | General issues of organizing medical care for adults and childrenAnatomy of the head, maxillofacial region, features of blood supply and innervation, structure of teeth. Histology and embryology of the oral cavity and teeth, the main disorders of embryogenesis. Anatomical and functional status and condition, features of the organs of the maxillofacial region, taking into account age. Normal and pathological physiology of the dentition, its relationship with the functional status of other body systems and the levels of their regulation. The role of oral hygiene, nutrition and the use of fluorides in the prevention of dental and periodontal diseases. The method of obtaining information of patient’s life (anamnesis vitae) and diseases (anamnesis morbi), complaints from children and adults (their legal representatives) with dental diseases. Goals and objectives of individual and professional oral hygiene. Hygienic indices and methods for their determination. Methods of examination and physical examination, features of clinical dental examination in children and adults with dental diseases. Clinical features, diagnostic methods, classification of diseases of the teeth, periodontium, oral mucosa, lips in children and adults. Clinical features, diagnostic methods, classification of diseases of the bone tissue of the jaws, peripheral nervous system of the maxillofacial region, temporomandibular joint in children and adults. Methods of laboratory and instrumental studies and for assessing the status of health, medical indications for conducting studies, rules for interpreting their results. Medical indications and contraindications for the use of additional examination methods. Medical products used in the provision of medical care to children and adults with dental diseases. International Statistical Classification of Diseases and Related Health Problems (ICD). The procedure for providing medical care to the adult population with dental diseases. The procedure for providing medical care to children with dental diseases. Clinical recommendations on the provision of dental care. Conditions requiring emergency medical attention and urgent medical care. Sanitary and epidemiological requirements and issues of organizing sanitary and anti-epidemic (preventive) measures in order to prevent the occurrence and spread of infectious diseases. | Gather information about complaints, patient’s life (anamnesis vitae) and diseases (anamnesis morbi) in children and adults (their legal representatives) with dental diseases, identify risk factors and causes of dental diseases. Interpret information received from children and adults (their legal representatives) with dental diseases. Apply methods of visual inspection and physical examination of children and adults with dental diseases. Interpret the results of the visual inspection and physical examination of children and adults with dental diseases. Diagnose diseases of the pulp and periodontium, periodontal disease, oral mucosa and lips in children and adults with dental diseases. Diagnose in children and adults with dental diseases defects of teeth, dentition, dentoalveolar deformities and anomalies of teeth and jaws, complete absence of teeth and prerequisites for their development, injuries of teeth, bones of the facial skeleton and soft tissues of the maxillofacial region. To identify risk factors for oncological diseases of the maxillofacial region in children and adults with dental diseases. Formulate a provisional (preliminary) diagnosis, draw up a plan for conducting laboratory, instrumental and additional studies in children and adults with dental diseases in accordance with the procedures for providing medical care, clinical recommendations, taking into account the standards of medical care. Refer children and adults with dental diseases for laboratory, instrumental and additional studies in accordance with the current procedures for the provision of dental care, clinical guidelines, taking into account the standards of medical care. Refer children and adults with dental diseases for consultations with specialist doctors in accordance with the procedures for providing medical care, clinical recommendations, taking into account the standards of medical care. Interpret and analyze the results of consultations by medical specialists for children and adults with dental diseases. Justify the necessity and scope of additional examinations of patients (including X-ray radiological methods). Interpret and analyze the results of basic (clinical) and additional (laboratory, instrumental) examination methods in children and adults with dental diseases, including X-ray data. Make a differential diagnosis of dental diseases in children and adults. Formulate a final diagnosis in accordance with the International Statistical Classification of Diseases and Related Health Problems (ICD). To identify clinical symptoms of sudden acute diseases, conditions, exacerbations of chronic diseases without obvious signs of a threat to life, requiring emergency medical care. | Gather information about complaints, patient’s life (anamnesis vitae) and diseases (anamnesis morbi) in children and adults (their legal representatives) with dental diseases, identify risk factors and causes of dental diseases. Visual inspection and physical examination of children and adults with dental diseases.Diagnostics in children and adults: - dental caries, - non-carious lesions, - pulp and periapical tissue diseases, - periodontal diseases, - diseases of oral and lip mucosa, - teeth defects, - dentition defects, - dentoalveolar deformities, - anomalies of teeth and jaws, - complete absence of teeth.Identification of risk factors for oncological diseases of the maxillofacial region in children and adults with dental diseases.Formulation of a preliminary diagnosis, drawing up a plan for conducting instrumental, laboratory, additional studies, consultations with specialist doctors in children and adults with dental diseases.Referral of children and adults with dental diseases for instrumental, laboratory, additional studies, consultations of specialist doctors in children and adults with dental diseases in accordance with the current procedures for the provision of dental medical care to adults and children, clinical recommendations, taking into account the standards of medical care.Interpretation of data from additional (laboratory and instrumental) examinations of patients (including radiological methods).Making a preliminary diagnosis in accordance with the International Statistical Classification of Diseases and Related Health Problems (ICD).Making a differential diagnosis of dental diseases.Making a final diagnosis in accordance with the International Statistical Classification of Diseases and Related Health Problems (ICD).Recognition of conditions arising from sudden acute diseases, exacerbation of chronic diseases without obvious signs of a threat to the patient's life and requiring emergency medical care. | Questioning, test |
|  | PC-2 | Ability to prescribing and conducting treatment for children and adults with dental diseases, monitoring its effectiveness and safety.   | The procedure for providing medical care to the adult population with dental diseases. The procedure for providing medical care to children with dental diseases. Clinical guidelines for providing medical care to patients with dental diseases.Medical care standards. Methods of drug and non-drug treatment, medical indications for the use of medical devices in dentistry. Groups of drugs used to provide medical care in the treatment of dental diseases; the mechanism of their action, medical indications and contraindications to the appointment; compatibility, possible complications, side effects, adverse reactions, including serious and unforeseen. Principles, techniques and methods of anesthesia, selection of the type of local anesthesia in the treatment of dental diseases. Ways to prevent or eliminate complications, side effects, adverse reactions, including serious and unforeseen, that occurred during the examination or treatment of patients with diseases of the teeth, pulp and periapical tissues, periodontium, oral mucosa and lips. Features of the provision of medical care in emergency forms for dental diseases. Materials science, technologies, equipment and medical products used in dentistry. Anatomy of the head, maxillofacial region, features of blood supply and innervation; the structure of the teeth; histology and embryology of the oral cavity and teeth, the main disorders of embryogenesis. | Develop a plan for the treatment of children and adults with dental diseases in accordance with the procedures for providing medical care, clinical recommendations, taking into account the standards of medical care. Select and prescribe medicines, medical devices (including dental materials), dietary nutrition, therapeutic regimen for the treatment of children and adults with dental diseases in accordance with the current procedures for the provision of medical care, clinical guidelines, taking into account the standards of medical care. Determine medical indications and contraindications for local anesthesia techniques in the maxillofacial region. Perform local anesthesia (application, infiltration, conduction) in children and adults with dental diseases. Perform medical interventions, including therapeutic, in children and adults with dental diseases on an outpatient basis (excluding endodontic retreatment): individual training in oral and dental hygiene, selection of means and items for oral hygiene, controlled toothbrushing, professional oral and dental hygiene, injection of drugs in the maxillofacial area, local application of remineralizing drugs in the tooth area, deep fluoridation of tooth enamel, sealing the fissure of the tooth with a sealant, professional teeth whitening, grinding and polishing of hard tooth tissues, restoration of a tooth with a filling using dental cements, chemically curing materials, photopolymers, restoration of teeth with the destruction of the contact point, restoration of a tooth with a filling material using anchor pins, application of a devitalizing paste, pulpotomy (amputation of the coronal pulp), extirpation pulp, instrumental and medical treatment of a well-permeable (well-passable) root canal, temporary filling with a root canal material, filling the root canal of a tooth with paste, gutta-percha pins, removal of supragingival and subgingival dental deposits in the tooth area (manually), ultrasonic removal of supragingival and subgingival dental deposits in the tooth area, closed curettage for periodontal diseases in the tooth area, application of a therapeutic dressing for periodontal diseases in the area of one jaw, prescription of drug therapy for diseases of the oral cavity and teeth, the appointment of dietary therapy for diseases of the oral cavity and teeth. Perform medical interventions, including surgical ones, in children and adults with dental diseases on an outpatient basis (excluding the extraction of impacted and dystopic teeth): tooth extraction, temporary tooth extraction, permanent tooth extraction, opening and drainage of an odontogenic abscess. Carry out a phased sanitation of the oral cavity (excluding sanitation of the oral cavity in children under anesthesia). Perform medical interventions, including orthopedic, in adults with dental diseases on an outpatient basis (excluding prosthetics on dental implants, technologies for automated production of orthopedic prosthetic dentures, complete removable plate and clasp dentures): obtaining anatomical and functional impressions, restoration of a tooth with a crown, restoration of integrity of the dentition with fixed bridges, prosthetics with partial removable partial dentures, correction of a removable orthopedic dentures, removal of a fixed orthopedic dentures and appliances. Interpret the results of X-ray examination of the maxillofacial region. To consult children and adults with diseases of the mucous membrane of the mouth and lips, to determine indications for referral to a specialist doctors. Prevent or eliminate complications, side effects, adverse reactions, including unforeseen ones, resulting from diagnostic or therapeutic manipulations, the use of drugs and (or) medical devices, non-drug treatment. | Development of a treatment plan for children and adults with dental diseases, taking into account the diagnosis, age and clinical symptoms in accordance with the current procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care.Providing emergency and emergency medical care to patients with dental diseases, in accordance with the current procedures for the provision of medical care, clinical guidelines, taking into account the standards of medical care. Selection and prescription of medicines, medical devices (including dental materials) for the treatment of dental diseases in children and adults in accordance with the current procedures for the provision of medical care, clinical guidelines, taking into account the standards of medical care.Prescribing dietary nutrition, health-improving regimen in the treatment of dental diseases in children and adults in accordance with the current procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care.Performing medical interventions in children and adults with dental diseases in accordance with the current procedures for the provision of medical care, clinical guidelines, taking into account the standards of medical care.Evaluation of the results of medical interventions in children and adults with dental diseases.Selection of the type and conduct of local anesthesia (application, infiltration, conduction) in children and adults with dental diseases.Evaluation of the effectiveness of the safety of the use of drugs, medical devices and non-drug treatment in children and adults with dental diseases.Counseling children and adults with diseases of the mucous membrane of the mouth and lips, determining indications for referral for a consultation with specialist doctors.Selection and prescription of medicines and medical devices, taking into account the diagnosis, age and clinical picture of a dental disease in accordance with the procedures for providing medical care, clinical recommendations, taking into account the standards of medical care.Determination of methods of administration, regimen and dose of drugs.Selection and prescription of non-drug treatment for children and adults with dental diseases in accordance with the procedures for providing medical care, clinical guidelines, taking into account the standards of medical care.Prevention and treatment of complications, side effects, adverse reactions, including unforeseen ones, resulting from diagnostic or therapeutic procedures, the use of drugs and (or) medical devices, non-drug treatment at a dental appointment.Providing medical care to children and adults in case of sudden acute diseases, conditions, exacerbation of chronic diseases without obvious signs of a threat to the life of the patient in an emergency form.The use of medicines and medical devices in the provision of medical care in an emergency form.  | Questioning, test |
|  | PC-7 | Ability to analyze medical and statistical information, maintain medical records, organize the activities of medical personnel. | Rules for registration and features of maintaining medical documentation and records, including in the form of an electronic document, in medical organizations of a dental profile. Rules of work in medical information systems and information and telecommunication network "Internet". Job responsibilities of medical workers in medical organizations of the dental profile.Organization of the work of dental offices, equipment of dental offices, departments and clinics.Labor protection, safety and fire safety requirements, emergency procedures. | Prepare work plan and work report.Fill in medical documentation, including in the form of an electronic document, and control the quality of its maintenance.To analyze the medical and statistical indicators of the incidence of dental diseases.To use information systems in the field of healthcare and the information and telecommunications network "Internet" in their work.Supervise the performance of the duties of the medical staff at their disposal.Use in the work of personal data of patients and information constituting a medical secret. | Drawing up a work plan and a report on their work.Maintaining medical records, including in the form of an electronic document.Monitoring the performance of official duties at the disposal of medical personnel.The use of information systems in the field of healthcare and the information and telecommunication network "Internet".Use in the work of personal data of patients and information constituting a medical secret. | Questioning |

*\*Assessment tools: written tests (multiple choice questions, modified essay questions, short/structured essay questions); practical tests (objective structured practical examinations, oral tests, clinical tests, questioning, log books.*

**4. Discipline sections.**

|  |  |  |  |
| --- | --- | --- | --- |
| № | Competence | Section of the discipline | Content  |
| 1 | PC-1,2,7 | Methods of correction of aesthetic parameters of the teeth  | Color, shape and size of natural teeth in normal conditions. The nomenclature and classification of change of the color, size and shape of the teeth.The causes of disorders of the aesthetic parameters of the teeth.. Modern methods of diagnosis and correction of aesthetic parameters of the teeth. Teeth discoloration: classification, etiology and clinical manifestations. Modern methods of treatment of dental discoloration. Bleaching techniques: chemicals, composition and mechanism of action. Procedure, indications and contraindications for teeth whitening. Methods of intracoronal whitening: indications, contraindications and possible complications.Contemporary resin materials: composition, classification and indications for use. Features of aesthetic restoration of the anterior teeth. Features of the aesthetic restoration of the posterior teeth. Translucency, opacity, shade, fluorescence of composite resins. Indications, contraindications, limitations of composite restorations.Restoration of teeth and dentitions using prosthetic treatment methods. Veneers and onlays: methods of fabrication, indications and contraindications for use. Direct and indirect method of veneers fabrication. Comparison of conservative and prosthetic methods in the correction of aesthetic parameters of the teeth; criteria for the treatment method choice, indications, contraindications and limitations.Features of the teeth restorations in endodontically treated teeth. The use of posts and post-and-cores when restoring the anatomical shape of the teeth.  An interdisciplinary approach to the correction of aesthetic parameters of the teeth. The role of the general dentist, prosthodontist, orthodontist and general practitioner in the treatment and correction of aesthetic parameters of the teeth.  |

**5. Distribution of discipline labor intensity and academic work in semesters.**

|  |  |  |
| --- | --- | --- |
| Academic works | Labor intensity | Labor intensity (academic hours) in semester |
| credits  | academic hours |
| 5 | 6 | 7 | 8 | 9 | 10 |
| Classroom work | 2,0 |  |  |  |  | 36 |  |  |
|  Lectures (L) |  |  |  |  |  | 4 |  |  |
|  Lab works (LW) |  |  |  |  |  |  |  |  |
|  Practical classes (PC) |  |  |  |  |  |  |  |  |
|  Clinical classes (CC) |  |  |  |  |  | 32 |  |  |
|  Seminars (S) |  |  |  |  |  |  |  |  |
| Self-study (S-S) |  |  |  |  |  | 20 |  |  |
| Intermediate attestation |  |  |  |  |  | 4 |  |  |
| **Total**  | 2,0 |  |  |  |  | 60 |  |  |

 5.1. Discipline sections, academic works and current assessment tools

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| № | semester | Discipline sections | Academic works (academic hours) | Assessment tools |
|  |  |  | L | LW | PC | CC | S | SS | Total |  |
| 1 | 8 | Methods of correction of aesthetic parameters of the teeth  | 4 | - | - | 32 | - | 20 | 56 | Questioning, tests. |
| 2 | 8 | Intermediate attestation | 4 |  |  |  |  |  |  | Interview |
|  |  | Total | 8 | - | - | 32 |  | 20 | 60 |  |

 5.2. Distribution of lectures in semesters

|  |  |  |
| --- | --- | --- |
| № | Themes of the lectures | Academic hours |
|  |  | Semesters |
|  |  | 5 | 6 | 7 | 8 | 9 | 10 |
| 1 | Causes of disorders of the aesthetic parameters of the teeth. |  |  |  | 1 |  |  |
| 2 | Comparison of composite and ceramic restorations.  |  |  |  | 1 |  |  |
| 3 | The restoration of teeth with significant crown destruction. |  |  |  | 2 |  |  |

 5.3. Distribution of lab work in semesters

|  |  |  |
| --- | --- | --- |
| п/№ | Theme of the lab work | Academic hours |
|  |  | Semester | Semester |
|  | **Not conducted** |  |  |
|  |  |  |  |
|  |  |  |  |
|  | Total (- AH) |  |  |

 5.4. Distribution of practical classes in semesters

|  |  |  |
| --- | --- | --- |
| п/№ | Themes of practical classes | Academic hours |
|  |  | semester | semester |
|  | **Not conducted** |  |  |
|  |  |  |  |
|  |  |  |  |
|  | Total (- AH) |  |  |

 5.5. Distribution of clinical classes in semesters

|  |  |  |
| --- | --- | --- |
| п/№ | Themes of clinical classes | Academic hours |
|  |  | Semester  |
|  |  | 5 | 6 | 7 | 8 | 9 | 10 |
| 1 | Optical properties of hard dental tissues and composite materials. |  |  |  | 2 |  |  |
| 2 | Biomechanical properties of hard dental tissues, composite materials and ceramics. |  |  |  | 2 |  |  |
| 3 | The restoration of anterior teeth with composite materials. |  |  |  | 8 |  |  |
| 4 | The restoration of posterior teeth with composite materials. |  |  |  | 6 |  |  |
| 5 | Dental bleaching techniques for the treatment of teeth discoloration. |  |  |  | 4 |  |  |
| 6 | Non-vital (internal) bleaching technique for the treatment of teeth discoloration. |  |  |  | 2 |  |  |
| 7 | Restoration of teeth using ceramic veneers and inlays, fabrication of ceramic veneers and inlays. |  |  |  | 2 |  |  |
| 8 | Comparison of composite and ceramic veneers. |  |  |  | 2 |  |  |
| 9 | The restoration of teeth with significant crown destruction.  |  |  |  | 4 |  |  |

 5.6. Distribution of seminars in semesters

|  |  |  |
| --- | --- | --- |
| п/№ | Themes of the seminars | Academic hours |
|  |  | Semester | Semester |
|  | **Not conducted** |  |  |
|  |  |  |  |
|  |  |  |  |
|  | TOTAL ( - AH) |  |  |

 5.7. Distribution of self-study by types and semesters

|  |  |  |
| --- | --- | --- |
| п/№ | Type of self-study work | Academic hours |
|  |  | Semester |
|  |  | 5 | 6 | 7 | 8 | 9 | 10 |
| 1 | Case history |  |  |  |  |  |  |
| 2 | Essay |  |  |  |  |  |  |
| 3 | Presentation |  |  |  | 10 |  |  |
| 4 | Report |  |  |  |  |  |  |
| 5 | Preparation to clinical classes |  |  |  | 10 |  |  |
|  | TOTAL ( AH) |  |  |  | 20 |  |  |

**6. Assessment tools**

6.1. Types of current control and intermediate attestation, assessment tools.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| №  | № of semester  | Types of control | Part of the discipline  | Assessment tools |
| Type | Number of questions  | Number of distractors |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|  | 5 | Test, questioning | Methods of correction of aesthetic parameters of the teeth  | tests | 10 | 2 |

6.2. Examples of assessment tools:

Choose ONE correct answer.

1. **Internal tooth discoloration that occurs after teeth eruption can be caused by:**

A. tetracycline intake

B. using a rinse with chlorhexidine

C. tooth injury with a damage of the neurovascular bundle

D. hemolytic anemia

1. **Intracoronal bleaching is used for:**

A. treatment of fluorosis

B. bleaching of tetracycline teeth,

C. whitening of teeth previously treated with silver post

D. “smoker" plaque removal

1. **Absolute contraindication to the resin veneers:**

A. open bite

B. bruxism

C. poor oral hygiene

D. non-vital teeth

1. **The most frequent complication that occurs after bleaching of vital teeth:**

A. enamel cracks

B. lack of results

C. hypersensitivity

D. darkening of the tooth

1. **Cutting edge of incisors in young patients is:**

A. transparent

B. opaque

C. the same as in elderly

D. does not have features

6.3. Assessmen tools, included in the fund of assessment tools for final state certification.

**7. Educational & methodical support of the discipline (printed editions, electronic publications, internet other network resources)**

7.1. The basic textbooks

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| № | Book  | Authors | Edition | Exemplars  |
| In the library | At the department |
| 1 | 2 | 3 | 4 | 7 | 8 |
|  | Sturdevant’s Art and science of operative dentistry. 6th edition  | HO Heymann, EJ Swift, AV Ritter. |  Mosby, 2012 |  | 1 |
|  | Cohen’s pathways of the pulp. 11th edition | KM Hargreaves, L Berman. | Mosby, 2015: 928 pages. |  | 1 |
|  | Oral and maxillofacial diseases. 4th edition.  | C. Sculli, S Flint. | CRC Press, 2010 |  | 1 |

7.2. Additional editions\*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| № | Book  | Authors | Edition | Exemplars |
| In the library | At the department |
| 1 | 2 | 3 | 4 | 7 | 8 |
|  | Oral Diseases.Textbook and Atlas. | TM Lotty, LC Paris, RS Rogers. -  | Springer-Verlag Berlin Heidelberg, 1999  |  | 1 |
|  | Summitt’s Fundamentals of Operative Dentistry: A Contemporary approach, 4th edition JL.  | TJ Hilton | Quintessence Pub Co, 2013 |  | 1 |
|  | Oxford Handbook of Clinical Dentistry 6th Edition  | D Mitchell, L Mitchell | Oxford University Press; 2014 |  | 1 |
|  | Pocket Atlas of Oral Diseases by George Laskaris  | G Laskaris | Thieme; 2005 |  |  |

7.3. Tutorial guides.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| № | Name | Authors | Edition | Exemplars |
| In the library | At the department |
| 1 | 2 | 3 | 4 | 7 | 8 |
|  | Tutorial Guide of Operative Dentistry for Dental students of second and third Years of education  | Ф.Ю. Даурова, М.К. Макеева, З.С. Хабадзе. | Москва: РУДН, 2016 – 151 с. |  | 1 |
|  | Cariology and non-caries lesions: tutorial guide | Ф.Ю. Даурова, Л.А. Кожевникова, М.К. Макеева, З.С. Хабадзе. | Москва: РУДН, 2016 – 184 с.  |  | 5 |

7.4. Recommendations for the tutors

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| п/№ | Name | Authors | Edition | Exemplars |
| In the library | At the department |
| 1 | 2 | 3 | 4 | 7 | 8 |
|  | Sturdevant’s Art and science of operative dentistry. 6th edition  | HO Heymann, EJ Swift, AV Ritter. |  Mosby, 2012 |  | 1 |
|  | Cohen’s pathways of the pulp. 11th edition | KM Hargreaves, L Berman. | Mosby, 2015: 928 pages. |  | 1 |
|  | Oral and maxillofacial diseases. 4th edition.  | C. Sculli, S Flint. | CRC Press, 2010 |  | 1 |

**8. Logistic support of the discipline.**

Rooms for tutorials:

1. dental offices with universal dental units;

2. class rooms for reports, presentations and discussions.

*Equipment for tutorials:*

1. dental instruments sets;

2. restorative end endodontic materials;

3. radiovisiography systems;

4. negatoscopes;

5. multimedia projectors;

6. laptop;

7. PC;

8. flash-cards with lectures presentations;

9. tutorial guides.

**9.Educational technologies in an interactive form used in the process of teaching the discipline:**

9.1. Examples of educational technologies in an interactive form:

In accordance with the requirements of the Federal State Educational Standard, the active and interactive forms of performing classes are widely used in the educational process (computer presentation of expert materials, computer simulation; visualized test tasks; videos, analysis of specific situations, etc.) The specific weight of classes performed in interactive forms is **at least 10% of** classroom classes.

* 1. **Electronic educational resources used in the process of teaching the discipline:**

|  |  |  |
| --- | --- | --- |
| No. | Name and brief description of electronic educational and information resources (electronic publications and information databases) | Number of copies, access points |
| *1* | *2* | *3* |
| 1 | Educational portal of the First MGMU them. THEM. Sechenovahttp: //dl.sechenov.ru/ |  |
| 2 | Central Scientific Medical Library <http://www.scsml.rssi.ru/> |  |
| 3 | Library of Natural Sciences of the Russian Academy of Sciences<http://www.benran.ru/>; [http://www.benran.ru/Magazin/El/Str\_elk1.htm](http://www.benran.ru/magazin/el/str_elk1.htm) |  |
| 4 | International citation database PubMedhttp://www.ncbi.nlm.nih.gov/ |  |
| 5 | Publishing house of academic medical literature Elsevierhttp: //www.elsevier. com / |  |
| 6 | Scientific Electronic Library eLibraryhttp://elibrary.ru// |  |
| 7 | Information and educational portal for doctors Univadishttp://www.univadis.ru/ |  |
| 8 | Electronic Medical Library Consultant of a doctorhttp://www.rosmedlib.ru/ |  |