

**Thematic plan of seminar-type classes  
in the discipline " Implantology and reconstructive oral surgery "  
for students of 2021 year of admission  
according to the educational program specialization 31.05.03 Dentistry,  
direction Dentistry (specialty),  
full-time education form  
2024-2025 academic year**

№	Topic	Ac. hours
<b>8 semester</b>		
1.	History of formation, current state and prospects of development of dental implantology. Prospects and trends in the development of implantology as a science. The problem of choice - implant or bridge prosthesis, advantages and disadvantages. Possibilities of modern implantology.	2
2.	Theoretical justification of the dental implantation technique. Legal aspects of dental implantation. Informing the patient. Documentation.	2
3.	Causes of bone loss in the area of missing teeth and their consequences. Possibilities of rehabilitation of patients with dental implants.	2
4.	The problem of choice - implant or bridge, advantages and disadvantages. Indications for dental implantation.	2
5.	General contraindications to dental implantation. Local contraindications to dental implantation. Risk factors of dental implantation.	2
6.	Anatomical prerequisites for dental implantation. Causes of bone loss in the area of missing teeth and their consequences. Bone tissue biology. Bone tissue regeneration.	2
7.	Physiologic and reparative regeneration. Hormonal regulation of bone vital activity. Response of bone tissue to functional load.	2
8.	Bone tissue architectonics. Types of jaw bone tissue structure.	2
9.	The theory of clot retraction. Morphological features of bone wound healing. Physiological basis of bone tissue reaction to trauma, reparative regeneration of bone tissue.	2
10.	The phenomenon of osseointegration. Studies by P.I. Branemark. Mechanisms of osteogenesis during implantation. The concept of contact and distant osteogenesis. Factors influencing the optimization of the process of osseointegration. Morphological features of the bone-implant contact zone.	2
11.	Diagnosis and treatment planning using dental implants. Scheme of pre-implant diagnostics. Basic and additional methods of examination of patients during implant treatment.	2
12.	The use of CT scanning in implant treatment planning.	2
13.	Key factors for implant planning. Treatment planning in the most common clinical situations.	2

14.	Type of adentia, prosthetic methods, amount of bone tissue, type of bone architectonics.	2
15.	Types of implants and features of different implant systems. Classification of implants. Features of the macro- and microrelief of the implant surface. Comparative anatomy of the tooth-alveolar and implant-alveolar segment.	2
16.	Surgical instrumentation and medication management of dental implantation.	2
17.	Preoperative preparation of the patient for surgery (premedication, anesthesia, sedation). Postoperative management of the patient. Dynamics of the acute period.	2
18.	Basic implant techniques. One-stage and two-stage approaches in the use of dental implants. Timing of implantation, type of load. Types of surgical guides and methods of their construction.	2
19.	Surgical stage in dental implantation. Features of anesthesia. Creation of the implantation field, implant placement, wound closure.	2
20.	Immediate implantation. Indications, contraindications. Algorithm of decision making on immediate implantation. Peculiarities of the surgical stage.	2
21.	Implantation in complex clinical cases. Implantation in problematic anatomical conditions (in the area of bone defects). Types of defects.	2
22.	Modern concepts of osteoplastic materials. Their use in dental implantology and in reconstructive surgeries in the oral cavity, tooth- saving surgeries.	2
23.	Biological bases of bone grafting. General principles of bone grafting. Types of reconstructive surgeries on the jaw bones and their technique.	2
24.	Basic techniques of directed tissue regeneration using membrane technique and titanium structures.	2
25.	Sinus-lifting. Anatomical prerequisites for subantral augmentation. Surgical anatomy of the maxillary sinus. Features of the maxillary sinus structure.	2
26.	Open (direct) sinus-lifting. Indications. Contraindications. Techniques. Complications.	2
27.	Closed sinus-lifting. Indications. Contraindications. Techniques. Complications.	2
28.	Possible complications at the stage of dental implant placement and ways of their elimination. Prevention and treatment of complications in the early postoperative period and in the late period of dental implantation.	2
29.	Standards of implantation. Study of the success of implant treatment parameters. Features of professional hygiene in patients with dental implants. Clinical follow-up.	2
30.	Intermediate certification	2
Total		60

Considered at the meeting of the Department for Oral Surgery and Maxillofacial Surgery “8”  
June 2024, protocol №9.

Head of the department

A handwritten signature in black ink, appearing to be 'E.N. Yarygina', is written over a horizontal line.

Е.Н.Ярыгина