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**Medical Institute** 

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

## COURSE SYLLABUS

IMPLANTOLOGY AND RECONSTRUCTIVE SURGERY OF ORAL CAVITY

course title

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

31.05.03 Dentistry

field of studies / speciality code and title

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

Dentistry

higher education program profile/specialization title

2022

# 1. THE GOALS OF MASTERING THE DISCIPLINE

The aim of the course **«Implantology and reconstructive surgery of oral cavity»** is to train the dentist able to provide surgical care to patients with defects of the maxillofacial tissues, to perform dental implantation for the full-fledged medical rehabilitation of patients with dental defects.

# 2. **REQUIREMENTS to LEARNING OUTCOMES**

The mastering of the discipline **«Implantology and reconstructive surgery of oral cavity»** is aimed at the formation of the following competencies of students: GPC-2, GPC-5, GPC-6, GPC-7, GPC-9, PC-1, PC-2, PC-3, PC-5.

Competence code	Competence	<b>Indicators of Competence Formation</b> (within the framework of this discipline)	
GPC-2	Able to analyze results of given activities to prevent professional mistakes.	<b>GPC-2.1</b> . Analyzing the causes of professional errors, therapeutic failures and conflict situations. <b>GPC-2.2</b> . Providing scientific arguments for and implementing recommendations aimed at improving the medical and legal training of dentists, preventing professional errors, adverse outcomes and conflict situations.	
GPC-5	Able to examine a patient in order to establish a diagnosis while solving professional problems	<b>GPC-5.2</b> . Formulating a preliminary diagnosis and drawing up a plan for laboratory and instrumental examinations of a dental patient.	
GPC-6	Able to prescribe, monitor the effectiveness and safety of non-drug and drug treatment in solving professional problems	<b>GPC-6.1.</b> Developing a plan for dental disease treatment taking into account 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 taking into account the medical care standards <b>GPC-6.2.</b> Selecting medical products (including dental materials) for drawing up a comprehensive plan for dental disease treatment. Following up the treatment of a patient.	
GPC-7	Able to organize work and make professional decisions in case of emergency, in emergencies, epidemics and in outbreaks of mass destruction	<ul> <li>GPC-7.1. Being able to use the algorithm for providing first aid in emergency conditions, including in extreme conditions and foci of mass destruction.</li> <li>GPC-7.2. Identifying conditions requiring emergency medical care, including clinical signs of sudden cessation of blood circulation and acute respiratory failure.</li> </ul>	
GPC-9	Able to assess morphological and functional states and pathological processes in the human body to solve professional problems	<b>GPC-9.1.</b> Being able to use the algorithm of clinical, laboratory and functional diagnosis in dealing with professional tasks <b>GPC-9.2</b> . Evaluating the results of clinical, laboratory and functional diagnosis in dealing with professional tasks.	

Table 2.1. The list of competencies formed by students during the development of the discipline (results of the mastering of the discipline)

Competence code	Competence	<b>Indicators of Competence Formation</b> (within the framework of this discipline)		
PC-1	Able to diagnose children and adults with dental diseases, making a diagnosis.	<ul> <li>PC-1.1. Making an initial examination and/or reexamination of a patient in order to make a preliminary diagnosis.</li> <li>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 in order to make a preliminary diagnosis.</li> </ul>		
PC-2	Able to prescribe, monitor the efficacy and safety of non-drug and drug treatment	<ul> <li>PC-2.1. Organizing the provision of emergency and urgent medical care for acute dental diseases, conditions, exacerbation of chronic diseases, which pose a threat to the patient's life, or without obvious signs of a threat to the patient's life.</li> <li>PC-2.2. Selecting drugs and medical devices (including dental materials) for dental disease treatment assessing the possible side effects of taking medicinal drugs</li> </ul>		
PC-3	Able to prescribe and conduct treatment of children and adults with dental diseases, monitoring its effectiveness and safety	<ul> <li>PC-3.1. Providing qualified medical care in the specialty using modern rehabilitation methods approved for use in medical practice.</li> <li>PC-3.2. Drawing up an individual rehabilitation plan for a patient with diseases of the maxillofacial area.</li> </ul>		
PC-5	Able to make medical examinations to children and adults with dental diseases	<ul> <li>PC-5.1. Motivating patients (their relatives/legal representatives) to stick to a healthy lifestyle and give up bad habits.</li> <li>PC-5.2. Promoting positive behavior so that patients (their relatives/legal representatives) maintain and improve their level of health .</li> </ul>		

# 3. THE COURSE IN THE HIGHER EDUCATION PROGRAMME STRUCTURE

The course **«Implantology and reconstructive surgery of oral cavity»** refers to the *variaty* part of Block1 B1.V.08 of the EP HE.

Within the framework of the Educational Program, students also master other disciplines and/or practices that contribute to expected learning outcomes of the course **«Implantology and reconstructive surgery of oral cavity»**.

*Table 3.1. List of Higher Education Program disciplines that contribute to expected learning outcomes* 

Competence code	The Competence	Previous Disciplines	Subsequent disciplines
GPC-2.	Able to analyse the results	Local anesthesia and	Maxillofacial Prosthetics,
	of their own professional	Anesthesiology in	Geriatric Dentistry and
	activity to prevent	Dentistry, Oral and	mucosal diseases,
	professional errors	Maxillofacial Surgery	Gnathology and functional
		and Gnathic Surgery;	diagnostics of
		Diseases of the head and	temporomandibular joint
		neck; Denture prosthetics	
		(complex prosthetics),	
		Full mouth dental	
		implants	

Competence code	The Competence	Previous Disciplines	Subsequent disciplines
GPC-5.	Able to examine patients to determine a diagnosis when solving professional tasks	Local anesthesia and Anesthesiology in Dentistry, Oral and Maxillofacial Surgery and Gnathic Surgery; Diseases of the head and neck; Denture prosthetics (complex prosthetics), Full mouth dental implants <b>Practice:</b> manufacturing practice dental surgeon assistant	Maxillofacial Prosthetics, Geriatric Dentistry and mucosal diseases, Gnathology and functional diagnostics of temporomandibular joint <b>Practice:</b> manufacturing practice dental assistant
GPC-6.	Able to prescribe non- drug and drug treatment, monitor its efficacy and safety when solving professional tasks	Pharmacology, Histology, Embryology, Cytology – Oral histology, Microbiology, Virology – Oral microbiology, Local anesthesia and Anesthesiology in Dentistry, Oral and Maxillofacial Surgery and Gnathic Surgery; Diseases of the head and neck; Denture prosthetics (complex prosthetics), Full mouth dental implants <b>Practice:</b> manufacturing practice dental surgeon assistant	Maxillofacial Prosthetics, Geriatric Dentistry and mucosal diseases, Gnathology and functional diagnostics of temporomandibular joint, Clinical Pharmacology <b>Practice:</b> manufacturing practice dental assistant
GPC-7.	Able to organize work and take professional decisions in case of emergency conditions, amid emergencies, epidemics, and in the foci of mass destruction	Public Health, Healthcare, Health and wellness, Epidemiology, Emergancy medicine, Local anesthesia and Anesthesiology in Dentistry, Oral and Maxillofacial Surgery and Gnathic Surgery; Diseases of the head and neck; Denture prosthetics (complex prosthetics), Full mouth dental implants <b>Practice:</b> manufacturing practice dental surgeon assistant	Maxillofacial Prosthetics, Geriatric Dentistry and mucosal diseases, Gnathology and functional diagnostics of temporomandibular joint <b>Practice:</b> manufacturing practice dental assistant

Competence code	The Competence	Previous Disciplines	Subsequent disciplines
GPC-9.	Able to assess morpho- functional, physiological conditions and pathological processes in the human body to solve professional tasks	Local anesthesia and Anesthesiology in Dentistry, Oral and Maxillofacial Surgery and Gnathic Surgery; Diseases of the head and neck; Denture prosthetics (complex prosthetics), Full mouth dental implants <b>Practice:</b> manufacturing practice dental surgeon assistant	Maxillofacial Prosthetics, Geriatric Dentistry and mucosal diseases, Gnathology and functional diagnostics of temporomandibular joint <b>Practice:</b> manufacturing practice dental assistant
PC-1.	Able to make an examination of a patient in order to determine a diagnosis.	Local anesthesia and Anesthesiology in Dentistry, Oral and Maxillofacial Surgery and Gnathic Surgery; Diseases of the head and neck; Denture prosthetics (complex prosthetics), Full mouth dental implants, Pediatric dentistry, Orthodontology and children's prosthetics <b>Practice:</b> manufacturing practice dental surgeon assistant	Maxillofacial Prosthetics, Geriatric Dentistry and mucosal diseases, Gnathology and functional diagnostics of temporomandibular joint, Orthodontology and children's prosthetics <b>Practice:</b> manufacturing practice dental assistant
PC-2.	Able to prescribe, monitor the efficacy and safety of non-drug and drug treatment	Local anesthesia and Anesthesiology in Dentistry, Oral and Maxillofacial Surgery and Gnathic Surgery; Diseases of the head and neck; Denture prosthetics (complex prosthetics), Full mouth dental implants, Pediatric dentistry, Orthodontology and children's prosthetics <b>Practice:</b> manufacturing practice dental surgeon assistant	Maxillofacial Prosthetics, Geriatric Dentistry and mucosal diseases, Gnathology and functional diagnostics of temporomandibular joint, Orthodontology and children's prosthetics <b>Practice:</b> manufacturing practice dental assistant
PC-3.	Able to provide emergency medical treatment	Public Health, Healthcare, Health and wellness, Epidemiology, Emergancy medicine,	Maxillofacial Prosthetics, Geriatric Dentistry and mucosal diseases, Gnathology and functional

Competence code	The Competence	Previous Disciplines	Subsequent disciplines
		Local anesthesia and Anesthesiology in Dentistry, Oral and Maxillofacial Surgery and Gnathic Surgery; Diseases of the head and neck; Denture prosthetics (complex prosthetics), Full mouth dental implants <b>Practice:</b> manufacturing practice dental surgeon assistant	diagnostics of temporomandibular joint <b>Practice:</b> manufacturing practice dental assistant
PC-5.	Able to make medical examinations to children and adults with dental diseases	Local anesthesia and Anesthesiology in Dentistry, Oral and Maxillofacial Surgery and Gnathic Surgery; Diseases of the head and neck; Denture prosthetics (complex prosthetics), Full mouth dental implants, Pediatric dentistry, Orthodontology and children's prosthetics, Forensic Sciences <b>Practice:</b> manufacturing practice dental surgeon assistant	Maxillofacial Prosthetics, Geriatric Dentistry and mucosal diseases, Gnathology and functional diagnostics of temporomandibular joint, Orthodontology and children's prosthetics <b>Practice:</b> manufacturing practice dental assistant

# 4. THE DISCIPLINE WORKLOAD AND ACADEMIC ACTIVITIES

The total workload of the discipline is equal to 2 credits.

Table 4.1. Types of academic activities during the period of the H	<i>i program mastering</i>
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Types of acader	nic activities	TOTAL, academic hours (ac.h)	Semesters 10
Classroom learning, ac.h.		48	48
Lectures (Lec)			
Lab work (Lab)		48	48
Practical lessons / Seminars (Se	em)		
Self-studies, ac.h.		18	18
Evaluation and assessment (exa	am or pass/fail grading),	6	6
ac.h.			
Total workload of the ac.h.		72	72
discipline	credits	2	2

## 5. THE COURSE MODULES AND CONTENTS

The name of the discipline section	Section content (topics)	Type of academic activities
Module 1 Anomalies and defects of maxillofacial region	<b>1.1</b> Surgical treatment for anomalies and defects of the upper and lower jaws. Operative intervention.	Lab, SS
Module 2 Periodontology	<b>2.1</b> Surgical preparation of the oral cavity for prosthetics (bone grafting).	Lab, SS
	<b>2.2</b> Operations on the soft tissues of the oral cavity.	Lab, SS
	<b>2.3</b> Surgical methods in the complex treatment of periodontal diseases	Lab, SS
Module 3 Dental and maxillofacial	<b>3.1</b> Dental and maxillofacial implantation.	Lab, SS
implantation	<b>3.2</b> Types of implantation. Indications, contraindications, diagnostics, preparation for surgery, methods of surgery.	Lab, SS

Table 5.1. The content of the discipline and types of academic activities

# 6. CLASSROOM EQUIPMENT AND TECHNOLOGY SUPPORT REQUIREMENT

Classroom for Academic Activity Type	Classroom Equipment	Specialized educational/laboratory equipment, software and materials for the mastering of the discipline
Laboratory	Classroom for lab work, individual consultations, self- studies equipped with a set of specialized furniture (FHSS 286, CDC aud. №2)	Laptop, MS Office, Projector, Tables «Medical education», Photo protocol of patients, Video recordings of operations, Dental X-ray and CT, Translation of operations from the surgery room to the screen in the study room in online mode. Macropreparations, models, phantoms, Surgical kit for exodontia , splinting of teeth and jaws, reposition of zygomatic bone, suturing.

 Table 6.1. Logistical and material provision of the discipline.

Classroom for Academic Activity Type	Classroom Equipment	Specialized educational/laboratory equipment, software and materials for the mastering of the discipline
Classroom for students self- studies	Classroom for self-studies of students (can be used for seminars and consultations), equipped with a set of specialized furniture, microscopes and computers with stable wireless Internet connection (FHSS 286, CDC aud. №2, Main building, lec.hall)	Laptop, MS Office, Projector, Tables «Medical education», Photo protocol of patients, Video recordings of operations, Dental X-ray and CT, Translation of operations from the surgery room to the screen in the study room in online mode. Macropreparations, models, phantoms, Surgical kit for exodontia , splinting of teeth and jaws, reposition of zygomatic bone, suturing.

# 7. **RECOMMENDED SOURSES for COURSE STUDIES**

## Main reading

- Surgical dentistry and maxillofacial surgery: national guidelines / edited by A.A. Kulakov, T.G. Robustova, A.I. Nerobeeva. - M. : GEOTAR-Media, 2015. - 928 p. - (National Guidelines). - ISBN 978-5-9704-37278.
- 2. Surgical dentistry : textbook / under the general editorship of V.V. Afanasyev. 3rd ed., reprint. M.: GEOTAR-Media, 2016. 400 p. ISBN in 978-5-9704-3704-9.
- 3. Bezrukov V.M, Robustova T.G. "Manual of surgical dentistry and maxillofacial surgery" 2nd ed., pererab, and add., Moscow, "Medicine", 2000. T1. pp. 245-280.
- 4. Maxillofacial surgery : textbook / edited by A.Y. Drobyshev, O.O. Yanushevich. M. : GEOTAR-Media, 2018. 880 p. ISBN at 978-5-9704-4081-0.

# Additional reading:

- Shargorodsky A.G. "Inflammatory diseases of the tissues of the maxillofacial region and neck" Moscow State Medical University of the Russian Federation 2001, pp. 5-14, 118-191, 237-254.
- Mukovozov I.N. Differential diagnosis of diseases of the maxillofacial region. L., "Medicine", 1982
- 3. Yanushevich O.O. Periodontology : national guide-M.: GEOTAR- Media, 2018. 752 p.
- 4. Rabukhina N.A., Arzhantsev A.P. Roentgenodiagnostics in dentistry, 2nd edition, stereotypical // Moscow: MIA, 2003. 451 р. стереотипное // М.: МИА, 2003. 451 с.
- Plastic surgery of soft tissues of the oral cavity. / Ed . Giovanni Zuccelli M.: ABC, 2014 816 p.
- Combined maxillofacial anomalies and defects: a guide for doctors/ Ed. Andreishcheva A.R. -M.: GEOTAR-Media, 2008. — 224 p.

#### Internet (based) sources:

1. Electronic libraries with access for RUDNstudents:

- Electronic library network of RUDN ELN RUDN <u>http://lib.rudn.ru/MegaPro/Web</u>
- ELN «University Library online» http://www.biblioclub.ru
- ELN Urait <u>http://www.biblio-online.ru</u>
- ELN « Student Advisor» <u>www.studentlibrary.ru</u>
- ELN « Lan» <u>http://e.lanbook.com/</u>
- 2. Databases and search engines:
  - electronic fund of legal and regulatory and technical documentation <u>http://docs.cntd.ru/</u>
  - abstract database SCOPUS <u>http://www.elsevierscience.ru/products/scopus/</u>
  - WHO Documentation Center <u>http://whodc.mednet.ru/</u>
  - electronic library on surgery <u>http://window.edu.ru/resource/993/56993</u>

## 8. EVALUATION TOOLKIT AND GRADE SYSTEM FOR ASSESSMENT

Evaluation Toolkit (ET) and a point-rating system (PRS)\* for assessment the level of competence formation (part of competencies) based on the results of mastering the discipline "Implantology and reconstructive surgery of oral cavity" are presented in the Appendix to this Work Program of the discipline.

 $\ast$  - ET and PRS are formed on the basis of the requirements of the relevant local regulatory act of the RUDN

## **DEVELOPERS:**

Associate Professor of the Departmen maxillofacial surgery and surgical dentistry	t	V.D. Trufanov
position, name of the department	signature	initials, surname
Assistant of the Department maxillofacial surgery and surgical dentistry		I.S. Fomenkov
position, name of the department	signature	initials, surname
HEAD of the Department maxillofacial surgery and surgical dentistry		S.Yu. Ivanov
position, name of the department	signature	initials, surname
HEAD of Higher Education Program Deputy Director MI RUDN by specialty Dentistry		S. N. Razumova
position, name of the department	signature	initials, surname