# Дата подписания: 25.01.2604 16.565' FRIENDSHIP UNIVERSITY OF RUSSIA NAMED AFTER **PATRICE LUMUMBA RUDN University**

### **Institute of Medicine**

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

## **COURSE SYLLABUS**

Maxillofacial and Orthognathic Surgery

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 programme of higher education:

Dentistry

higher education programme profile/specialisation title

2023-2024

## 1. COURSE GOAL(s)

The goal of the course **«Maxillofacial and Orthognathic Surgery»** is to prepare the student for the examination, diagnosis and treatment of patients with traumatic injuries, diseases of the salivary glands, surgical care for patients with defects and deformities of tissues of the maxillofacial region, with diseases and injuries of the maxillofacial nerve, with diseases of the temporomandibular joint (hereinafter TMJ) and contractures of the lower jaw.

## 2. REQUIREMENTS FOR LEARNING OUTCOMES

Mastering the course (module) **«Maxillofacial and Orthognathic Surgery»** is aimed at the development of the following competences /competences in part: GPC-2, GPC-5, GPC-6, GPC-7, GPC-9, PC-1, PC-2, PC-3, PC-5.

Competence code	Competence descriptor	<b>Competence formation indicators</b> (within this course)
GPC-2	Able to analyze the results of his/her own activities to prevent professional errors	GPC -2.1. Analyze the causes of professional errors, adverse treatment outcomes and conflict situations. The following is a summary of the results of the research and implementation of recommendations aimed at improving the medical and legal training of dentists and the prevention of professional errors, adverse outcomes and conflict situations.
GPC -5	Able to exam a patient in order to establish a diagnosis when dealing withprofessional tasks	GPC -5.1 Gather anamnesis, analyze patient complaints, conduct physical examination at dental appointments. Formulate a preliminary diagnosis and make a plan for laboratory and instrumental examinations of the dental patient.
GPC -6.	Able to prescribe, monitor the effectiveness and safety of non-medicinal and medication-assisted treatment for professional tasks	GPC -6.1. Develops a treatment plan for dental disease taking into account the diagnosis, age and clinical picture in accordance with the current procedures of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care. GPC -6.2 Selects medical devices (including dental materials) to make a comprehensive treatment plan for dental diseases. Supervises the further course of treatment of the patient.
GPC -7.	Aable to organize work and making professional	GPC-7.1. Have an algorithm for first aid in emergencies, including in extreme conditions and
	decisions under emergency	mass destruction foci.

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

	conditions, emergencies, epidemics, and hotbeds of mass destruction	GPC -7.2 Identify conditions requiring emergency medical care, including clinical signs of sudden
		circulatory and respiratory arrest. GPC-9.1. Have an algorithm of clinical-laboratory
GPC-9.	Able to assess morphofunctional conditions and pathologicalprocesses in the humanbody to solve professionalproblems	and functional diagnostics when solving professional tasks. Assess the results of clinical-laboratory and functional diagnostics when solving professional tasks.
PC -1	Able to diagnose children and adults with dental diseases, establish a diagnosis	
PC-2	administer treatment for	<ul> <li>PC-2.1. Organizes medical care in emergency and urgent forms for acute dental diseases, conditions, exacerbation of chronic diseases that are life-threatening to the patient or without clear signs of life-threatening to the patient.</li> <li>PC-2.2. selects medications and medical devices (including dental materials) for the treatment of dental diseases, evaluating the possible side effects of taking medications.</li> </ul>
PC-3	Able to provide medicalcare in an emergency and urgent form	PC-3.1 Provides qualified medical care in their specialty using modern rehabilitation methods approved for use in medical practice. PC-3.2 Make an individual rehabilitation plan for a patient with maxillofacial diseases.
PC-5	examinations of children	<ul><li>PC-5.1. Motivates patients (their relatives/legal representatives) to lead a healthy lifestyle and give up harmful habits.</li><li>PC-5.2. develops positive behavior in patients (their relatives/legal representatives) aimed at preserving and improving health.</li></ul>

## **3. COURSE IN HIGHER EDUCATION PROGRAMME STRUCTURE**

The course refers to the <u>core</u>/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*
--------------------	-----------------------	---------------------------	--------------------------------

GPC-2.	Able to analyze the results ofhis/her own activities to prevent professional errors	Local anesthesia and anesthesiology in dentistry, Oral surgery, Propaedeutics of dental diseases, Normal anatomy <b>Internship</b> : internship assistant dentist surgeon	Head and Neck Diseases, Maxillofacial Prosthetics, Gerontostomatology and Mucosal Diseases, Gnathology and Functional Diagnosis of the Temporomandibular Joint <b>Internship</b> : internship assistant general dentist
GPC -5.	Able to exam a patient in order to establish a diagnosis when dealing withprofessional tasks	Local anesthesia and anesthesiology in dentistry, Oral surgery,	Head and Neck Diseases, Maxillofacial Prosthetics, Gerontostomatology and Mucosal Diseases,
GPC -6.	Able to prescribe, monitorthe effectiveness and safetyof non- medicinal andmedication- assisted treatment for professionaltasks	Local anesthesia and anesthesiology in dentistry, Oral surgery, Propaedeutics of dental diseases, Normal anatomy <b>Practice</b> : industrial practice assistant dentist surgeon	Head and Neck Diseases, Maxillofacial Prosthetics, Gerontostomatology and Mucosal Diseases, Gnathology and Functional Diagnosis of the Temporomandibular Joint <b>Internship</b> : internship assistant general dentist
GPC -7.	Able to organize work and making professional decisions incase of emergencies, emergencies, epidemics, and hotbeds of mass destruction	Local anesthesia and anesthesiology in dentistry, Oral surgery, Propaedeutics of dental diseases, Normal anatomy <b>Internship</b> : internship assistant dentist surgeon	Head and Neck Diseases, Maxillofacial Prosthetics, Gerontostomatology and Mucosal Diseases, Gnathology and Functional Diagnosis of the Temporomandibular Joint <b>Internship</b> : internship assistant general dentist
GPC -9.	Is able to assess morphofunctional conditions and pathological processes in the human body to solve professional problems	Local anesthesia and anesthesiology in dentistry, Oral surgery, Propaedeutics of dental diseases, Normal anatomy	Head and Neck Diseases, Maxillofacial Prosthetics, Gerontostomatology and Mucosal Diseases,

Competence code	Competence descriptor	Previous courses/modules*	Subsequent courses/modules*
		<b>Practice</b> : industrial practice assistant dentist surgeon	Gnathology and Functional Diagnosis of the Temporomandibular Joint <b>Internship</b> : internship assistant general dentist
PC-1.	Able to diagnose children and adults with dental diseases, establish a diagnosis	Local anesthesia and anesthesiology in dentistry, Oral surgery, Propaedeutics of dental diseases, Normal anatomy <b>Practice</b> : industrial practice assistant dentist surgeon	Head and Neck Diseases, Maxillofacial Prosthetics, Gerontostomatology and Mucosal Diseases, Gnathology and Functional Diagnosis of the Temporomandibular Joint <b>Internship</b> : internship assistant general dentist
PC-2.	Able to prescribe and administer treatment for children and adults with dental diseases, monitorits effectiveness and safety	Local anesthesia and anesthesiology in dentistry, Oral surgery, Propaedeutics of dental diseases, Normal anatomy	Head and Neck Diseases, Maxillofacial Prosthetics, Gerontostomatology and Mucosal Diseases, Gnathology and Functional Diagnosis of the Temporomandibular Joint
PC-3.	Able to provide medical care in an emergency and urgent form	Local anesthesia and anesthesiology in dentistry, Oral surgery, Propaedeutics of dental diseases, Normal anatomy <b>Practice</b> : industrial practice assistant dentist surgeon	Head and Neck Diseases, Maxillofacial Prosthetics, Gerontostomatology and Mucosal Diseases, Gnathology and Functional Diagnosis of the Temporomandibular Joint <b>Internship</b> : internship assistant general dentist
PC-5.	Able to conduct medical examinations of children and adults with dental diseases	Local anesthesia and anesthesiology in dentistry, Oral surgery, Propaedeutics of dental diseases, Normal anatomy	Head and Neck Diseases, Maxillofacial Prosthetics, Gerontostomatology and Mucosal Diseases, Gnathology and Functional Diagnosis of the Temporomandibular Joint <b>Internship</b> : internship assistant general dentist

\* 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 is 6 credits (216 academic hours).

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

	Total		Semesters/train	ning modules
Type of academic activities	academic	8	9	10
	hours			
Classroom learning, ac.h.	144	48	48	48
Including:	-	_	-	-
Lectures (LC)				
Lab work (LW)	144	48	48	48
Seminars (workshops/tutorials) (S)				
Self-studies	54	18	18	18
Evaluation and assessment (exam/passing/failing grade)	18	6	6	6
Course workload academic hours	216	72	72	72
credits	6	2	2	2

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

Course module title	Course module contents (topics)	Academic activities types
<b>Module 1</b> Infectious inflammator	<ol> <li>1.1 Actinomycosis of the maxillofacial region.</li> <li>Tuberculosis, syphilis of the maxillofacial region.</li> </ol>	LW
ydiseases of the maxillofacial region	1.2 Boils, facial carbuncles. Rust infection	LW
· · · · · · · · ·	2.1 Anatomy of salivaryglands.Reactive- dystrophic changes (sialosis).	LW
	2.2 Inflammatory diseases of the salivary glands. Salivary gland disease. Damage to the salivary glands.	LW
Module 3 Traumatic injuries of the maxillofacial region.	3.1 Statistics and classification of injuries of themaxillofacial region. Classification. Damage to the soft tissues of the face.	LW

# **5. COURSE CONTENTS**

Modules and Topics	Content of the topics	Type of academic activities
	3.2 Non-gunshot injuries of the facial skull bones and teeth. Dislocations and fractures of teeth. Fractures of the alveolar process. Fractures of the upper and lower jaw	LW
	3.3 Methods of immobilization in jaw fractures. Generalmethods of treatment and care of patients with jaw fractures.	LW
	3.4 Fractures of the zygomatic bone and arch. Fractures of the nasal bones.	LW
Module 4	4.1 Neuritis and trigeminal neuralgia	LW
Diseases of the	4.2 Lingual Pharyngeal Nerve Neuralgia	LW
trigeminal and facial nerves	4.3 Facial Nerve Damage	LW
Module 5 Diseases of the	5.1 Inflammatory diseases of the temporomandibular joint	LW
temporomandibul	5.2 Dystrophic diseases of the temporomandibularjoint	LW
ar joint	5.3 Temporomandibular joint ankylosis Lower jaw contracture	LW
	5.4 Internal Disorders of the Temporomandibular Joint	LW
<b>Module 6</b> Military field surgery	6.1 Organization of military maxillofacial surgery. Peculiarities of gunshot wounds. Firearm injuries of soft tissues of the face. PCS of wounds.	LW
	6.2 Gunshot injuries of facial bones. Combined injuries of the maxillofacial region.	LW
	<ul><li>6.3 Facial burns (thermal, electric burns, chemical burns, frostbites).</li><li>Combined radiation lesions of the face and oral tissues.</li></ul>	LW
	6.4 Complications of gunshot and radial injuries. Methods of treatment of victims in emergency conditions.	LW
Module 7 Restorative surgeryof the	<ul><li>7.1 Goals and objectives of reconstructive surgery.</li><li>Planning of reconstructive surgery.</li><li>Plastics with local tissues.</li></ul>	LW
maxillofacial region	7.2 Plastics with stem flaps. Plastics with Filatov's stem flap	LW
	7.3 Free tissue grafting. Surgical treatment of jaw deformities.	LW

\* - to be filled in only for **<u>full</u>**-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 activities	Classroom equipment	Specialised educational / laboratory equipment, software, and materials for course study (if necessary)
Lab work	Auditorium for laboratory work, individual consultations, currentmonitoring and interim certification, equipped with a set of specialized furniture andequipment. (FGSN 286, CDC classroom 2)	PC, Microsoft Products (OS, office applications package),Projector. Medicaid tables. Photographs oftopical patients. Videos with operationalinterventions A set of radiographs and computedtomograms. Broadcasting operations from the operatingroom to the screen in the training room in online mode. Macro preparations, models, trainingphantoms. Surgical instrument sets for tooth extraction, dental implants, and varioustypes of sutures.
Self-studies	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. (FGSN 286, CDC Auditorium 2,Main Building Lecture Hall)	Microsoft products (OS, officeapplications package) Medical textbook tables, PC, projector, Photos of thematic patients. Videos with surgical interventions A set of radiographs and computedtomograms. Broadcasting operations from the operatingroom to the screen in the training room in online mode. Macro preparations, models, trainingphantoms. Surgical instrument sets for tooth extraction, dental implant placement, splinting of teeth and jaws, cheekbone repositioning, different types of sutures.

\* The premises for students' self-studies are subject to **MANDATORY** mention

## 7. RESOURCES RECOMMENDED FOR COURSE STUDY

### Main readings:

1. Maxillofacial Surgery : textbook / edited by A.Yu. Drobyshev, O.O. Yanushevich. -Moscow : GEOTAR-Media, 2018. - 880 c. - ISBN 978-5-9704-4081-0.

2. Surgical Dentistry : textbook / ed. by V.V. Afanasiev. Afanasiev. - 3rd ed. revised. - M. : GEOTAR-Media, 2016. - 400 c. - ISBN 978-5-9704-3704-9.

3. Surgical Dentistry and Maxillofacial Surgery : National Guide / edited by A.A. Kulakov, T.G. Robustova, A.I. Nerobeev. - Moscow : GEOTAR-Media, 2015. - 928 c. - (National guidelines). - ISBN978-5-9704-3727-8.

4. Zandelov V.L., Gunko V.I. et al. "Sialolithiasis. Etiopathogenesis, clinic, features of diagnostics,treatment methods".tutorial.-Moscow: RUDN,2007.

5. Gunko V.I., Zandelov V.L., Trufanov V.D. et al. A brief guide to the specialty "Maxillofacial Surgery" PFUR. Moscow, 2008. 76p.

6. Zandelov V.L., Gunko V.I. Do Minh F. Odontogenic and neodontogenic cysts of the jaws. - Moscow: PFUR, 2013.

7. Zandelov V.L., Gunko V.I. Shabaev M.M. Congenital cysts and fistulas of the face and neck.

- Moscow: PFUR, 2013.

8. Zandelov V.L., Gunko V.I., Grishkov A.S., Boichevskaya V.A. Inflammatory diseases of salivary glands. Sialosis and sialoadenopathy. - Moscow: PFUR, 2014.

### Additional readings:

1. Surgical Dentistry. Inflammatory and dystrophic diseases of salivary glands: textbook / A.M. Panin, I.V. Gaiduk, V.I. Vasiliev [et al]; edited by A.M. Panin. - 2nd ed., revised and extended ; Electronic textual data. - Moscow : Literra, 2020. - ISBN 978-5-4235-0354-3.

2. Peculiarities of treatment of odontogenic cystic neoplasms of the lower jaw by cystotomy / B.Y.Asnin, S.A. Asnina, A.Yu. Drobyshev [et al.] // Stomatology. - 2020. - № T. 99 (6). - C. 33 - 37.

3. Diseases of teeth and oral cavity : textbook / I.M. Makeeva, S.T. Sokhov, M.Y. Alimova [et al.]

- Electronic text data. - Moscow : GEOTAR-Media, 2020. - 256 c. : ill. - ISBN 978-5-9704-5675-0.

4. Nerobeev A.I. Restoration of head and neck tissues by complex arterialized flaps//Monograph.Moscow: Medicine, 1988. 269 c.

5. Khitrov F.M. Atlas of plastic surgery of face and neck. Moscow, 1984.203 p.

6. Bezrukov V.M. N.A. Rabukhina, V.I. Gunko, et al. Deformities of the facial skull. M. MedicalInformation Agency. 2005. 304 c.

#### **Internet (based) sources**

1. Electronic libraries with access for RUDN students:

PFUR Libraries and third-party Libraries, to which university students have access on thebasis of contracts:

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

- University Library Online Libraries http://www.biblioclub.ru - Yurite Libraries http://www.biblio-online.ru

- Student's Consultant EBS www.studentlibrary.ru

- EBS "Lan" http://e.lanbook.com/
- 2. Databases and search engines:
- electronic collection of legal and regulatory and technical documentation http://docs.cntd.ru/
- SCOPUS abstract database http://www.elsevierscience.ru/products/scopus/ WHODocumentation Center http://whodc.mednet.ru/

- -Surgery Digital Library http://surgerylib.ru/ Training toolkit for self- studies to master the course \*:

1. The set of lectures on the course «Maxillofacial and Orthognathic Surgery»

2. The laboratory workshop (if any).on the course **«Maxillofacial and Orthognathic Surgery»** 

3. The guidelines for writing a course paper / project (if any) on the course **«Maxillofacial and Orthognathic Surgery»**.

4. ....

\* The training toolkit for self- studies to master the course is placed on the course page in the university telecommunication training and information system under the set procedure.

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

The assessment toolkit and the grading system\* to evaluate the competences formation level (GPC-2, GPC-5, GPC-6, GPC-7, GPC-9, PC-1, PC-2, PC-3, PC-5) upon the course study completion are specified in the Appendix to the course syllabus.

\* 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:**

Associate Professor of the Departmentmaxillofacial surgery and surgical dentistry		V.D. Trufanov
position, department	signature	name and surname
Assistant of the Department maxillofacial surgery and surgical dontistry		S.J. Hossain
and surgical dentistry		name and surname
position, department	signature	name and surname
HEAD OF EDUCATIONAL DEPART Department maxillofacial	MENT:	
surgery and surgical dentistry		S.Yu. Ivanov
name of department	signature	name and surname
HEAD OF HIGHER EDUCATION PROGRA Deputy Director MI RUDN by specialty Dentistry	MME:	S.N. Razumova
position, department	signature	name and surname