

Ministry of Science and Higher Education of the Russian Federation
Federal State Autonomous Institution of Higher Education
“National Research Nuclear University “MEPhI”

INSTITUTE OF ENGINEERING PHYSICS FOR BIOMEDICINE

DEPARTMENT OF FUNDAMENTAL MEDICINE

APPROVED HTC ИФИБ

Protocol No. 3.1

dated 30.08.2024

ACADEMIC COURSE OUTLINE

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Educational program track (speciality) [1] 31.05.01 General Medicine

Semester	Labour input, credits	Total course academic, hours	Lectures, hrs.	Practical sessions, hrs.	Laboratory sessions, hrs.	In the form of practical studies, hrs.	Independent studies, hrs.	Independent studies monitoring, hrs.	Course progress, Exam/Pass-fail exam/Term
7	3	108	20	40	0		48	0	PFE
Total	3	108	20	40	0	40	48	0	

ABSTRACT

1. ACADEMIC COURSE GOALS AND OBJECTIVES

2. PLACE OF THE ACADEMIC COURSE IN THE MAIN HIGHER EDUCATION CURRICULUM

3. DEVELOPED COMPETENCIES AND INTENDED LEARNING OUTCOMES

Universal and/or general professional competencies:

Competency code and title	Code and title of competency-based rubrics
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Professional competencies in compliance with the goals and professional knowledge areas:

Professional activity goal	Professional activity knowledge area	Professional competency code and title; Based on the professional standard, experience analysis	Code and title of competency-based rubrics
medical			
Diagnostics of diseases and pathological conditions of the patients.	Individuals (patients); the population; the set of means and technologies aimed at creating conditions for preserving and strengthening the health of the adult population	IIK-3.2 [1] - Capable of conducting patient examinations to establish a diagnosis <i>The base:</i> Professional standard: 02.009	3-IIK-3.2[1] - Know: - clinical diagnosis establishment algorithm; - patient history-taking and physical examination methodology; - laboratory and instrumental research methods for health assessment to establish a diagnosis; - semiotics of diseases of different organs and systems; - structure, principles of the current International Statistical Classification of Diseases and Related Health Problems (hereinafter - ICD).; Y-IIK-3.2[1] - Be able to: - conduct patient history-taking and physical

			examination; - interpret history, physical examination data, laboratory and instrumental results to recognize a condition or establish the presence/absence of a disease, establish a diagnosis; - distinguish and recognize in each specific case tissue damage, the reaction to it, and the form of adaptability; - develop a patient examination plan, justify the necessity and scope of laboratory and instrumental examination; - identify main pathological conditions, symptoms and syndromes, nosological forms in the patient according to the current ICD.; B-IIK-3.2[1] - Possess skills in: - patient history-taking and physical examination; Formulating a preliminary diagnosis; - developing a patient examination plan; Interpreting laboratory and instrumental results; - establishing a diagnosis considering the current ICD
Providing primary medical care in outpatient settings and day hospital settings.	Individuals (patients); the population; the set of means and technologies aimed at creating conditions for preserving and strengthening the health of the adult population	IIK-3.3 [1] - Able to provide primary medical care in an outpatient setting <i>The base:</i> Professional standard: 02.009	3-IIK-3.3[1] - Know: - general issues of organizing medical care for the population and organizing medical care for the adult population in outpatient settings, including at home; - features of medical care using telemedicine technologies; - Clinical picture, differential diagnosis, features of the course of the disease, complications and outcomes of internal diseases; - diagnostic

			criteria for the most common diseases of internal organs and systems; - indications for referring patients for specialist consultations according to clinical guidelines and considering relevant medical care standards; - indications for referring patients for specialized medical care in inpatient settings and day hospitals according to clinical guidelines and considering relevant medical care standards; - features of managing and treating elderly patients in outpatient settings. ; Y-IIK-3.3[1] - Be able to: - perform differential diagnosis of internal diseases; - monitor the course of physiological pregnancy; - justify the need for referring patients to specialist consultations; - recognize the main and concomitant diseases; - assess disease or condition severity - the degree of organ and/or system damage or functional impairment due to the disease/condition or its complications; - determine management, examination and treatment tactics for patients with specific diseases (nosological units) depending on disease severity and condition, according to clinical guidelines and considering relevant medical care standards.; B-IIK-3.3[1] - Possess skills in: - conducting differential diagnosis with other diseases/conditions, including emergencies; -
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			interpreting data obtained from patient consultations with specialists; - prescribing additional tests to clarify the diagnosis; - formulating a clinical diagnosis; - prescribing treatment according to clinical guidelines and considering relevant medical care standards.
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4. PEDAGOGIC POTENTIAL OF THE COURSE

Pedagogic tracks/objectives	Pedagogic goals (code)
Professional education	Establishing conditions for: formation of responsibility for professional choice, professional development and professional decisions (B18)
Professional education	Establishing conditions for: formation of motivation to improve the quality of medical care to the population and the desire to follow the rules and norms of interaction between the doctor, colleagues and the patient, contributing to the creation of the most favorable environment for the patient's recovery (B34)

5. ACADEMIC COURSE STRUCTURE AND CONTENT

Academic course sections, their scope, terms of study and assessment:

No.	Academic course section name	Weeks	Lectures/ Practical (seminars)/ Laboratory sessions, hrs.	Compulsory current assessment (form*, week)	Maximum grade per section**	Section assessment (form*, week)	Competency-based rubrics
	<i>7 Semester</i>						
1	Unit	1-8	10/20/0		25	T-8	3-ПК-3.2, У-ПК-3.2, В-ПК-3.2, 3-ПК-3.3, У-ПК-3.3, В-ПК-3.3
2	Unit	9-16	10/20/0		25	T-15	3-ПК-3.2, У-ПК-3.2, В-ПК-3.2, 3-ПК-3.3, У-ПК-3.3, В-ПК-3.3

	<i>Totals for 7 Semester</i>		20/40/0		50		
	Assessment events for 7 Semester				50	PFE	У-ПК-3.2, В-ПК-3.2, 3-ПК-3.3, У-ПК-3.3, В-ПК-3.3, 3-ПК-3.2

* – abbreviated name of assessment

** – 100 maximum points per semester including a pass/fail exam and (or) an exam

Abbreviated current assessment forms and section assessment

Abbreviation	Full name
T	Testing
PFE	Pass/fail examination

SYLLABUS

Weeks	Topics / Content	Lect., hrs.	Pr./sem., hrs.	Lab., hrs.
	<i>7 Semester</i>	20	40	0
1-8	Unit	10	20	0
1 - 8	Болезни зубов и их осложнения	All		
		10	20	0
		Online		
		0	0	0
9-16	Unit	10	20	0
9 - 12	Травматология челюстно-лицевой области	All		
		5	10	0
		Online		
		0	0	0
13 - 16	Рубцовые деформации лица и шеи	All		
		5	10	0
		Online		
		0	0	0

Abbreviated names of online options:

Abbreviation	Full name
EC	E-course
FtM	Full-text material
FtL	Full-text lectures
VM	Video materials
AM	Audio materials
Prs	Presentations
T	Tests
ERM	E-reference materials
IS	Interactive site

PRACTICAL SESSIONS TOPICS

Weeks	Topics / Content
	<i>7 Semester</i>
1 - 4	Болезни зубов и их осложнение
5 - 8	Гнойно-воспалительные заболевания челюстно-лицевой области
9 - 12	Травматические повреждения челюстно-лицевой области
13 - 16	Рубцовые деформации лица и шеи

6. EDUCATIONAL TECHNOLOGIES

7. ASSESSMENT TOOLKIT

The assessment toolkit ensures verification of the intended learning outcomes achievement (competency-based rubrics) using current, midterm and interim assessment of the course.

The link between developed competencies and their assessment is presented in the following table:

Competency	Achievement rubrics	Assessment activity (Syl 1)
ПК-3.2	З-ПК-3.2	PFE, T-8, T-15
	У-ПК-3.2	PFE, T-8, T-15
	В-ПК-3.2	PFE, T-8, T-15
ПК-3.3	З-ПК-3.3	PFE, T-8, T-15
	У-ПК-3.3	PFE, T-8, T-15
	В-ПК-3.3	PFE, T-8, T-15

Educational achievement rubrics scales

The scale of each assessment activity varies from 0 to the maximum established point, inclusive. The final assessment of the course is performed on a 100-point scale and represents the sum of the points earned by the student in the section assessments, framework of current and interim assessment.

Sections and interim assessments are considered passed when the student achieves a minimum score equal to 60% of the maximum. The final grade is assigned only upon passing all sections and the interim assessment.

The final grade is assigned in accordance with the following scale:

Total score	Rating on a 4-point scale	Pass/fail examination	ECTS assessment
90-100	5 – « <i>excellent</i> »	« <i>pass</i> »	A
85-89	4 – « <i>good</i> »		B
75-84			C
70-74			D
65-69	3 – « <i>satisfactory</i> »		E
60-64			

below 60	2 – «fail»	«fail»	F
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An “excellent” grade indicates a deep and solid mastery of the program material by a student who presents their answers consistently, clearly, and logically, is able to closely link theory with practice, and uses materials from monographic literature in their answers.

A “good” grade corresponds to a student’s solid knowledge of the material, who presents their answers competently and to the point, without any significant inaccuracies.

A “satisfactory” grade corresponds to the basic level of mastery of the material by the student, in which the main material has been mastered, but its details have not been assimilated, the answers contain inaccuracies, insufficiently correct wording and logical inconsistencies.

A grade “pass” corresponds to at least a basic level of mastery of the program material, in which the student possesses the necessary knowledge, skills, and abilities, and is able to apply theoretical principles to solve typical practical problems.

A grade “fail” is given to a student who lacks a significant understanding of the curriculum material, makes significant errors in their answers, or fails all required assignments. These students are generally unable to continue their studies without additional classes.

8. ACADEMIC COURSE EDUCATIONAL, METHODOLOGICAL AND INFORMATIONAL SUPPORT

CORE READING:

1. ЭИ С81 Стоматология : учебник, Афанасьев В.В., Москва: ГЭОТАР-Медиа, 2023
2. ЭИ Ч-38 Челюстно-лицевая хирургия : национальное руководство : практическое руководство, , Москва: ГЭОТАР-Медиа, 2023

FURTHER READING:

1. ЭИ D25 Essentials of Operative Dentistry : учебное пособие, Daurova F.Yu., Makeeva M.K., Khabadze Z.S., Москва: ГЭОТАР-Медиа, 2019
2. ЭИ P90 Preclinical course of dentistry. Part I. Introduction to dentistry : учебное пособие, , Москва: ГЭОТАР-Медиа, 2024
3. ЭИ А 17 Абсцессы и флегмоны челюстно-лицевой области и шеи. Атлас : учебное пособие : , Ургуналиев Б.К., Янушевич О.О., Афанасьев В.В., Москва: ГЭОТАР-Медиа, 2022
4. ЭИ Б 48 Английский язык. English in Dentistry : , Берзегова Л.Ю., Москва: ГЭОТАР-Медиа, 2022
5. ЭИ Б 67 Неотложная помощь в стоматологии : , Михайлов В.В., Васильев А.В., Бичун А.Б., Moscow: ГЭОТАР-Медиа, 2012

6. ЭИ О-60 Оперативная челюстно-лицевая хирургия и стоматология : учебное пособие, , Москва: ГЭОТАР-Медиа, 2019
7. ЭИ А 94 Стоматология. Тесты и ситуационные задачи : , Афанасьев В.В., Москва: ГЭОТАР-Медиа, 2023
8. ЭИ Ч-38 Челюстно-лицевая хирургия : учебник, Дробышев А.Ю., Янушевич О.О., Москва: ГЭОТАР-Медиа, 2021
9. ЭИ Э 41 Экстренная помощь при неотложных состояниях в стоматологии : практическое руководство, , Москва: ГЭОТАР-Медиа, 2017

SOFTWARE:

No special softwares is required

LMS AND ONLINE RESOURCES

<https://online.mephi.ru/>

<http://library.mephi.ru/>

9. LOGISTICAL SUPPORT

1. Персональный компьютер: Процессор CPU Intel Core i7-8700 (3.2GHz/12MB/6 cores)
Материнская плата Gig (Клиническая база)
2. Мышь, клавиатура (Клиническая база)
3. Проектор SMART P109 (Клиническая база)
4. Монитор (Клиническая база)
5. Медицинское оборудование для практической подготовки обучающихся, предусмотренное договором (Клиническая база)
6. Иное оснащение, предусмотренное порядками оказания медицинской помощи по соответствующему профилю (Клиническая база)

10. EDUCATIONAL AND METHODOLOGICAL RECOMMENDATIONS FOR TEACHERS

В процессе организации и проведения учебного процесса преподавателя необходимо уметь планировать и организовывать свое время, что позволяет распределить учебную нагрузку и является важным условием успешного преподавания дисциплины.

Преподаватель должен активно непосредственно участвовать в учебном процессе и проводить подготовку к нему. Необходимость постоянной подготовки к лекциям, семинарским и практическим занятиям обусловлена потребностью отражать современные подходы, взгляды, данные по темам и разделам. Проводя подготовку к учебному процессу необходимо изучать современные методические рекомендации, результаты научных исследований, новые технологии и т.д.

Целью работы преподавателя должно быть эффективное восприятие материала слушателями. В процессе преподавания реализуются следующие виды учебных работ: лекция, семинарское и практическое занятие, самостоятельная работа. При реализации различных видов учебной работы преподаватель должен использовать образовательные технологии (создание интерактивных презентаций, обучающие компьютерные программы, технологии развития мышления (эффективная лекция, таблицы, работа в группах и т.д.)

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