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

APPROVED НТС ИФИБ

Protocol No. 3.1

dated 30.08.2024

ACADEMIC COURSE OUTLINE

ГЕРИАТРИЯ / GERIATRICS

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
12	3	108	20	40	0		48	0	PFE
Total	3	108	20	40	0	40	48	0	

ABSTRACT

The curriculum is designed based on the requirements for completion of the specialist degree program. Graduates (medical practitioners) must be prepared to address the challenges of diagnosing, treating, and preventing diseases. During the course, students acquire knowledge, skills, and abilities in geriatric syndromes and age-associated diseases, screening and diagnostic methods, and treatment and prevention principles.

1. ACADEMIC COURSE GOALS AND OBJECTIVES

The goal of this course is to develop competencies in the diagnosis, treatment, and prevention of geriatric syndromes and diseases in older adults.

Objectives

- to develop a system of knowledge about the etiology, epidemiology, pathogenesis, clinical manifestations, diagnostic methods, treatment, and prevention of common geriatric syndromes and age-associated diseases;
- to develop readiness to identify the main pathological conditions, symptoms, and syndromes, as well as nosological forms of diseases in older adults, and formulate a preliminary diagnosis;
- to develop the skills and abilities to develop an examination and treatment plan for patients with geriatric syndromes and interpret the results of additional studies in accordance with clinical guidelines to establish a diagnosis;
- to develop the skills and abilities to provide medical care in emergency situations and determine indications for hospitalization;
- to develop the skills and abilities to select rational drug, non-drug, and other treatments for diseases in older adults, taking into account the severity of the disease and in accordance with clinical guidelines. Ability to evaluate the effectiveness and safety of prescribed treatment;
- Develop skills in conducting clinical observation for geriatric syndromes;
- Develop skills in implementing preventive measures aimed at preventing the development of diseases in older age groups, complications, relapses, rehabilitation measures, and promoting a healthy lifestyle;
- Develop communication skills with patients, taking into account ethics and deontology, and interaction skills with colleagues;
- Develop clinical thinking, the ability to work with scientific literature and apply regulatory documents in professional activities, and the ability to maintain medical records.

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

This course is part of the educational program developed by participants in educational relationships. It is a clinical discipline and contributes to the development of professional competencies, complementing and deepening the knowledge, skills, and abilities acquired through mastering other clinical disciplines.

The study of this course is preceded by the study of the following disciplines: Pathological Anatomy and Physiology, Internal Medicine (faculty and hospital courses), Surgical Diseases (faculty and hospital courses), Radiology, and other clinical disciplines and practices.

The knowledge, skills, abilities, and practical experience acquired in this course are necessary for successful professional activity.

3. DEVELOPED COMPETENCIES AND INTENDED LEARNING OUTCOMES

Universal and/or general professional competencies:

Competency code and title	**Code and title of competency-based rubrics**

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	ПК-3.2 [1] - Capable of conducting patient examinations to establish a diagnosis *The base:* Professional standard: 02.009	З-ПК-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).; У-ПК-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.; В-ПК-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	ПК-3.3 [1] - Able to provide primary medical care in an outpatient setting *The base:* Professional standard: 02.009	З-ПК-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. ; У-ПК-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.; В-ПК-3.3[1] - Possess skills in: - conducting differential diagnosis with other diseases/conditions, including emergencies; - 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.

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
	12 Semester						
1	The First Section	1-8	10/20/0	T-6 (25)	25	T-8	З-ПК-3.2, У-ПК-3.2, В-ПК-3.2, З-ПК-3.3, У-ПК-3.3, В-ПК-3.3
2	The Second Section	9-15	10/20/0	T-14 (25)	25	T-15	З-ПК-3.2, У-ПК-3.2, В-ПК-3.2, З-ПК-3.3, У-ПК-3.3, В-ПК-3.3
	Totals for 12 Semester		20/40/0		50		
	Assessment events for 12 Semester				50	PFE	З-ПК-3.2, У-ПК-3.2, В-ПК-3.2, З-ПК-3.3, У-ПК-3.3, В-ПК-3.3

* – 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.
	12 Semester	20	40	0
1-8	**The First Section**	10	20	0
1 - 4	**Biological markers of aging. Diagnostic criteria for assessing functional class and aging profile.** The concepts of "biological" and "chronological" age: definition, modern diagnostic methods. Biological markers of aging and their types. Disorders of post-translational modification, non-enzymatic glycosylation, and protein aggregation and their role in determining biological age. Immunological, epigenetic, genetic, and neurological markers of aging. Diagnostic criteria for assessing functional class and aging profile.	All		
		5	10	0
		Online		
		0	0	0
5 - 8	**The concepts of "biological" and "chronological" age: definition, modern diagnostic methods. Biological markers of aging and their types.** Conducting a comprehensive geriatric assessment in patients of different age groups. Identifying the main geriatric syndromes. Etiology and pathogenesis of frail asthenic syndrome. Clinical conditions contributing to the development of frail asthenic syndrome. Geriatric scales and questionnaires. Active longevity..	All		
		5	10	0
		Online		
		0	0	0
9-15	**The Second Section**	10	20	0
9 - 12	**Preventive gerontology and geriatrics. Prevention of premature aging.** Study of the principles of physiology and nutritional hygiene in the elderly and senile age. To identify opportunities for preventing the progression of frailty, identifying, diagnosing, treating, and preventing the progression of this syndrome, and developing a diagnostic algorithm for primary care physicians.	All		
		5	10	0
		Online		
		0	0	0
13 - 15	**Disease progression characteristics of organs in the elderly and senile age. Geropharmacology.** Age-related changes in the cardiovascular, respiratory, digestive, and endocrine systems. Treatment considerations in the elderly and senile age.	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**
	12 Semester
1 - 4	**Biological markers of aging. Diagnostic criteria for assessing functional class and aging profile.** 1. History of the development of geriatric care in the Russian Federation. Concept of aging. Frailty (senile asthenia) – a key geriatric syndrome: definition, causes, diagnosis, severity. Concepts of "biological" and "chronological" age: definition, modern diagnostic methods. 2. Biological markers of aging, their types. 3. Disorders of post-translational modification, non-enzymatic glycosylation, and protein aggregation and their role in determining biological age. 4. Immunological, epigenetic, genetic, and neurological markers of aging. 5. Diagnostic criteria for assessing functional class and aging profile.
5 - 8	**Comprehensive geriatric assessment of the patient. Active aging.** 6. Comprehensive geriatric assessment. Identification of the main geriatric syndromes. 7. Etiology and pathogenesis of frailty. Clinical conditions contributing to the development of frailty. 8. Geriatric scales and questionnaires. 9. Polymorbidity in old age.
9 - 11	**Preventive gerontology and geriatrics. Prevention of premature aging.** 10. Non-drug and pharmacological methods for correcting the rate of aging. 11. Prevention and correction of accelerated aging. 12. Organization of long-term care for fragile patients, creation of a friendly environment. 13. Methods for the prevention of frailty syndrome. Management of fragile patients of various nosological groups, specifics of pharmacotherapy, prevention of falls, osteoporosis, and dementia. 14. Creating a comfortable environment for fragile patients in the practice of a geriatrician.
12 - 15	**Disease Course Features in the Elderly and Old Age. Geropharmacology** 15. Geriatric Aspects of Pulmonary Diseases in the Practice of a Geriatrician. 16. Geriatric Aspects of Cardiological Diseases in the Practice of a Geriatrician. 17. Geriatric Aspects of Gastroenterological Diseases in the Practice of a Geriatrician. 18. Geriatric Aspects of Endocrinological Diseases in the Practice of a Geriatrician. 19. Geriatric Aspects of Musculoskeletal Diseases in the Practice of a Geriatrician. 20. Geriatric Aspects of Urinary System Diseases in the Practice of a Geriatrician. 21. Prevention of Major Geriatric Diseases in the Practice of a Geriatrician.

6. EDUCATIONAL TECHNOLOGIES

The course's teaching utilizes methods based on modern advances in science and information technology in education. These methods are aimed at improving the quality of specialist training by

developing students' creativity and independence. To this end, both traditional teaching methods (lectures, clinical practical classes) and interactive seminars and clinical case studies are employed:

- training-based practical classes (clinical case studies, cases, role-playing in the form of clinical case studies or patient supervision);
- interactive clinical case studies with patient demonstrations;
- engaging students in preclinical and clinical research, preparing presentation materials, reports, essays, or papers.

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, T-6, T-14
	У-ПК-3.2	PFE, T-8, T-15, T-6, T-14
	В-ПК-3.2	PFE, T-8, T-15, T-6, T-14
ПК-3.3	З-ПК-3.3	PFE, T-8, T-15, T-14
	У-ПК-3.3	PFE, T-8, T-15, T-14
	В-ПК-3.3	PFE, T-8, T-15, T-14

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:

<table>
<tr><th>Total score</th><th>Rating on a 4-point scale</th><th>Pass/fail examination</th><th>ECTS assessment</th></tr>
<tr><td>90-100</td><td>5 – «excellent»</td><td rowspan="7">«pass»</td><td>A</td></tr>
<tr><td>85-89</td><td rowspan="3">4 – «good»</td><td>B</td></tr>
<tr><td>75-84</td><td>C</td></tr>
<tr><td>70-74</td><td rowspan="2">D</td></tr>
<tr><td>65-69</td><td rowspan="2">3 – «satisfactory»</td></tr>
<tr><td>60-64</td><td>E</td></tr>
<tr><td>below 60</td><td>2 – «fail»</td><td>«fail»</td><td>F</td></tr>
</table>

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 Н99 Internal Diseases. Volume I : , Martynov A.I. [и др.], Москва: ГЭОТАР-Медиа, 2022

2. ЭИ Н99 Internal Diseases. Volume II : , Martynov A.I. [и др.], Москва: ГЭОТАР-Медиа, 2022

3. ЭИ Г 37 Гериатрия. Краткое руководство : , Котовская Ю.В. [и др.], Москва: ГЭОТАР-Медиа, 2022

FURTHER READING:

1. ЭИ Х 82 Гериатрия : практическое руководство, Хорошинина Л.П., Москва: ГЭОТАР-Медиа, 2019

2. ЭИ П 88 Гериатрия : учебник и практикум для вузов, Пузин С. Н. [и др.], Москва: Юрайт, 2024

3. ЭИ Д 33 Общая врачебная практика. В 2 томах. Том 2 : национальное руководство, Лесняк О.М., Денисов И.Н., Москва: ГЭОТАР-Медиа, 2018

SOFTWARE:

No special softwares is required

LMS AND ONLINE RESOURCES

https://online.mephi.ru/

http://library.mephi.ru/

9. LOGISTICAL SUPPORT

1. Тонометр для измерения артериального давления механический (64-302)

2. Стетоскоп (64-302)

3. Весы напольные с ростомером медицинские Твес ВМЭН-200С-50/100-СТ (64-302)

4. Электрокардиограф ЭК12Т-01-Р-Д/141 (64-301)

5. Манекен сердечно-легочной реанимации Р4201CPR ВОЛОДЯ. Модификация 1 (64-301)

6. Персональный компьютер: Процессор CPU Intel Core i7-8700 (3.2GHz/12MB/6 cores) Материнская плата Gig (Клиническая база)

7. Мышь, клавиатура (Клиническая база)

8. Проектор SMART P109 (Клиническая база)

9. Кушетка медицинская (Клиническая база)

10. Монитор (Клиническая база)

11. Иное оснащение, предусмотренное порядками оказания медицинской помощи по соответствующему профилю (Клиническая база)

10. EDUCATIONAL AND METHODOLOGICAL RECOMMENDATIONS FOR STUDENTS

Before beginning to study the topic, it is necessary to familiarize yourself with the key points of the practical lesson plan and the list of recommended readings.

When preparing for the practical lesson, you should first review the lecture notes, textbook sections, and teaching aids to gain a general understanding of the topic's place and significance in the course being studied. Then, work with additional literature and take notes on the recommended sources. While studying the recommended material, it is important to understand the structure of the topic being studied, identify key concepts, follow their logic, and thereby gain a deeper understanding of the problem being studied. It is essential to keep notes of the material being studied, which, along with visual memory, engages motor memory and allows you to accumulate a personalized resource for quick review of what has been read and for mobilizing accumulated knowledge.

Clinical Practical Lessons

The most important stage of the practical lesson is students' independent work on mastering practical skills: in simulated conditions, at the patient's bedside, in the functional diagnostics room, etc. Depending on the specific topic of the lesson, the student independently (or under the supervision of the instructor) interviews the patient, conducts a clinical examination, observes instrumental diagnostic tests, and studies the results of additional tests, summarizes the data, presents the results as fragments

of the patient's medical history, and reports the results to the instructor. Each student's performance is assessed individually, based on the development of practical skills and their theoretical foundations.

Clinical case studies are conducted for the entire group or through student participation in clinical case studies and periodic scientific and practical conferences at the medical institutions where practical training takes place. During case studies, the instructor evaluates each student's active participation and clinical reasoning skills.

Situational tasks proposed by the instructor are solved, developing clinical reasoning and challenging the student to apply knowledge gained in various specialty subjects.

Active and interactive learning methods are widely used in the educational process (work in small groups, activating creative activities, using computer-based learning programs, and class-conferences).

The instructor supervises students' independent work, including preparing papers, research projects, working with patients in collaboration with the instructor, interpreting data from additional research methods, and completing medical documentation.

Primary forms of writing: plans (simple and detailed), extracts, and abstracts. During preparation, it is important to compare sources, consider the material being studied, develop an action plan, and carefully consider your oral presentation.

Recommendations for preparing for the test.

Test: 10-15-20-25 points. Each question: 1 (2) point.

TOPICS: Indicated in each specific section.

Answer requirements: a clear, detailed answer (2 points/task) or choosing the correct answer to a test task (1 point/task).

Recommendations for preparing for the test/exam

Answer requirements and grading criteria:

An "excellent" grade of 45-50 points on the test/exam is awarded for: a correct, complete, and logically constructed answer; the ability to use specialized terminology; the ability to illustrate theoretical principles with practical material.

A "good" grade of 35-44 points on the exam is awarded for: a correct, complete, and logically constructed answer with minor errors or inaccuracies; the ability to use specialized terminology, but incomplete conclusions or generalizations are made.

A "satisfactory" grade of 30-34 points on the exam is awarded for: a schematic, incomplete answer; an inability to use specialized terminology or lack of knowledge of them; with one serious error;

An "unsatisfactory" grade of <30 points on the exam is awarded for: answering all questions on the test with serious errors; Inability to use specialized terminology; inability to provide examples of the practical application of scientific knowledge.

Admission to the exam in this discipline is granted if the student's score exceeds 30.

A student can earn between 30 and 50 points per semester.

The minimum score for an exam answer is 30, the maximum is 50.

11. EDUCATIONAL AND METHODOLOGICAL RECOMMENDATIONS FOR TEACHERS

When organizing and conducting the educational process, teachers must be able to plan and manage their time, which allows for the distribution of the teaching load and is an essential condition for successful teaching.

Teachers must actively participate in the educational process and prepare for it. The need for constant preparation for lectures, seminars, and practical classes is driven by the need to reflect modern approaches, views, and data on topics and sections. When preparing for the educational process, it is necessary to study modern methodological recommendations, scientific research results, new technologies, etc.

The goal of the teacher's work should be the effective comprehension of the material by students. The following types of learning activities are implemented during the teaching process: lectures, practical classes, and independent work. When implementing various types of educational work, the instructor must use educational technologies (creation of interactive presentations, educational computer programs, thinking development technologies (effective lecture, tables, group work, etc.)

During practical classes, students' assimilation of lecture material is monitored, patients are supervised, and practical skills are assessed.

Visual aids, surgical instruments, training devices, device simulators, or demonstrations of individual manipulations in real-life conditions are used to demonstrate and practice practical skills. To assess clinical thinking ability, students are offered situational problems, clinical cases, test assignments, case studies, and attendance at medical conferences, consultations, and scientific symposia.

The most important stage of the practical class is the students' independent work on mastering practical skills: in simulated conditions, at the patient's bedside, in the functional diagnostics room, etc. Depending on the specific topic of the class, the student independently (or under the supervision of the instructor) interviews the patient, conducts clinical The student is present during instrumental diagnostic tests and studies the results of additional studies, summarizes the data, presents them in the form of case history fragments, and reports the results to the instructor. Achievements are assessed individually for each student, based on the degree of development of practical skills and their theoretical foundations.

Clinical case studies of specific patients are conducted for the entire group or through students' participation in clinical case studies and periodic scientific and practical conferences at the medical organizations where practical training takes place. During case studies, the instructor evaluates each student's active participation and ability to think clinically.

Solving situational problems proposed by the instructor develops clinical thinking and forces the student to apply knowledge acquired in various specialty subjects.

Active and interactive forms of teaching are widely used in the educational process (work in small groups, activating creative activities, using computer-based learning programs, and class-conferences).

The instructor monitors students' independent work, preparation of papers, research projects, joint work with the patient with the instructor, interpretation of additional research data, and completion of questionnaires. Medical documentation.

Working with textbooks is considered a type of academic work and is completed within the time allotted for their study. Each student is provided with access to the electronic library collections of the institute and department.

Students' training helps them develop skills in communicating with patients, taking into account ethical and deontological principles.

Independent work helps develop skills in working with patients, working with literature, analytical thinking, documentation skills, accuracy, and discipline.

Students' initial knowledge level is determined by testing, and ongoing assessment of their mastery of the subject is determined by oral questioning during classes, during clinical discussions, by solving typical situational problems, and by answering test questions.

At the end of the course, midterm and final assessments are conducted using tests, practical skills assessment, and solving situational problems.

Grading and criteria for tests, extended tests, homework, and the final test:

1) - Tests are graded according to the following scheme: 1 point for 1 correct answer. A student who did not start work – (-1) point.

2) - Tests with detailed answers are graded according to the following formula: complete answer – 2 points, incomplete answer – 1 point, no answer – 0 points, student who did not start work – (-2) points.

3) - Homework must be completed by all students to be eligible for the final assessment. Late submissions will result in a deduction of (-1) point from the final score.

4) - Presentation Report Evaluation Criteria. Recalculated from a 100-point to a 10 (5)-point system.

5) - Abstract Evaluation Criteria. Maximum 10 points. May be upgraded to a 5-point system.

10 points are awarded if all abstract writing requirements are met: the problem is identified and its relevance justified, a brief analysis of the problem is provided and a logically presented position, conclusions are formulated, the article is fully analyzed, the length is maintained, and formatting requirements are met.

9 points are awarded if the following abstract writing requirements are met: the problem is identified and its relevance justified, a brief analysis of the problem is provided and a logically presented position, conclusions are formulated, the article is fully analyzed, but the length is not maintained and formatting requirements are not met.

8 points – the main abstract writing requirements are met, but some shortcomings are present. In particular, there are inaccuracies in the presentation of the material; a lack of logical consistency in the judgments; the abstract is not within the scope of the article; and there are omissions in the formatting.

7 points – the basic requirements for the abstract have been met, but the following shortcomings have been made: there are inaccuracies in the presentation of the material; a lack of logical consistency in the judgments; no conclusions have been formulated; the abstract is not within the scope of the article; and there are omissions in the formatting.

6 points – there are significant deviations from the abstracting requirements; the topic is only partially covered; there are factual errors in the content of the abstract; conclusions and a personal point of view on the problem are missing.

5 points – there are significant deviations from the abstract requirements: the topic is only partially covered; there are factual errors in the presentation of the materials and methods; conclusions and a personal point of view on the problem are missing; the format is not maintained.

4 points – there are significant deviations from the abstract requirements: the relevance of the topic is not disclosed; Factual errors were made in the presentation of materials and methods, conclusions and personal perspective on the problem are missing, and the format is not followed.

3 points – there is no analysis of the relevance of the research topic, approaches, and methods used, although the formal length of the abstract is met.

2 points – the abstract topic is not covered, revealing a significant misunderstanding of the problem. However, the abstract length and formal requirements are met.

1 point – the abstract topic is not covered, revealing a significant misunderstanding of the problem.

0 points – the student did not submit an abstract.

Author(s):

Koreeva Ekaterina Aleksandrovna / Кореева Екатерина Александровна /