Syllabus

Work program of the subject "Basics of scientific research"
Educational program 6B10101 "General Medicine"

1.	General information about the subject		
1.1	Subject codes: BSR 5201	1.6	Academic year: 2025-2026
1.2	Subject name: Basics of scientific research	1.7	Year: 5
1.3	Prerequisites: Public health and ethics in healthcare, Biostatistics	1.8	Semester: 9
1.4	Postrequisites: Production practice: "Clinical practice-4", Internship	1.9	Number of credits (ECTS): 5
1.5	Cycle: BD	1.10	Component: EC

2.	Subject description
Scientific research – definition, goals, objectives. Methodology, methods of scientific research, as well as ways of their organization. Research work's preparatory stage. Scientific information's main sources, their analysis, processing. Scientific ethics' concept. Formulation of scientific research conclusions. Methods of registration of research results in the form of abstracts, reports, articles based on results of scientific research.	

3.	Summative assessment form		
3.1	Testing (MCQs) ✅	3.5	Coursework
3.2	Writing	3.6	Essay
3.3	Oral	3.7	Project
3.4	Assessment of practical skills ✅	3.8	Other (specify)

4.	Subject objectives
To develop students' understanding of the fundamentals of scientific research and scientific thinking, teach them how to plan and format research work, select relevant topics, use information resources, and apply analytical methods in medical practice and education.	

5.	Subject learning outcomes	
LO1	1. Demonstrates knowledge of science and its classifications, knows the methodological foundations of scientific knowledge. Understands the main types of scientific research. Knows the characteristics of theoretical and experimental research. Has knowledge of the methods and methodology of scientific research.	
LO2	Knows methods for summarizing research results, requirements for preparing scientific reports, scientific articles, presentations, and presentation materials, and knows how science is managed in research institutions.	
LO3	Is able to search for new information when working with educational, general scientific, and specialized literature, and knows the main results of the latest research published in leading professional journals.	
LO4	Demonstrates their own knowledge and skills in conducting scientific research; ability to conduct literature searches and analyze scientific articles in independent study of the discipline; ability to work in a team.	
5.1	Subject LO	The subject learning outcomes linked with educational program learning outcomes
	LO 1 LO 2	LO6. Supports continuous personal and professional growth, constantly improves the quality of medical care based on self-assessment and lifelong learning.
	LO 3 LO 4	LO7. Applies scientific principles, methods and knowledge in medical practice and research. Capable of continuous self-education and development. Implements new methods into clinical practice.

6.	Detailed about subjects
6.1	Venue: Shymkent, South Kazakhstan Medical Academy (SKMA), 3 Al-Farabi Square, Academic Building No. 4, 2nd floor, Department of Social Health Insurance and Public Health, email: skmasmsoz@gmail.com.

6.2	Number of hours	Lectures	Practical classes	SIWT	SIW
	Number of hours: 150	10	40	15	85

7.	Information about teachers		
№	Full name	Degrees, Position	Email
1.	Magay Luybov Nikolaevna	Senior teacher, master degree	magai_luybov@mail.ru
2.	Kudyarova Saltanat Abatovna	Senior teacher, master degree	salta.deva@mail.ru
3.	Aidar Aliya	Senior teacher, master degree	turaidar_aa@mail.ru
4.	Khamza Aidana Batyrzhan	Senior teacher, master degree	aidanakhamza@mail.ru

8.	Thematic plan					
Day	**Topic**	**Brief content**	**Subject LO**	**Number of hours**	**Forms/methods/technologies of teaching**	**Forms/ methods of assessment**
1.	**Lecture** The concept of science. Classification of sciences.	Understanding the term "science" and its classification. Defining the purpose of science in understanding the objective world by identifying the essential aspects and interrelationships of phenomena in nature, society, and thought.	LO 1	1	Introductory	Feedback questions
	Practical class Research work: classification and sources of funding.	Types of research work, classification of scientific research depending on sources of funding.	LO 1	3	Working in small groups	Oral questioning, Solving situational problems
	SIWT/SIW Stages of scientific research work. ***SIWT assignment*** *Create and format a table with the main stages of scientific research work, give a brief description of each stage, indicate its purpose and expected result.*	Defining the stages of scientific research work and their types.	LO 2	1/6	Report, presentation, preparation of test tasks	Evaluation criteria for SIW/SIWT
2.	**Lecture** Concept of scientific research methods and methodology.	Definition of scientific research methods, set of methodologies.	LO 1	1	Overview	Feedback questions
	Practical class Prerequisites for scientific research.	Formulating the problem and choosing a topic. PICO → scientific problem → relevance.	LO 4	3	Case-study	Solving situational problems
	SIWT/SIW Induction, deduction, modeling. ***SIWT assignment*** *Prepare a comparative analysis of the methods of induction, deduction, and modeling. Give one example of the use of each method in medical research.*	The difference between induction and deduction, definition of scientific induction methods, modeling methods.	LO 1	1/6	Report, presentation, quizzes and tests	Evaluation criteria for SIW/SIWT
3.	**Lecture** Types of scientific research: types, goals, objectives.	Randomized controlled trials (RCTs), cohort studies, case-control studies, reviews. Strengths and weaknesses.	LO 1	1	Overview	Feedback questions
	Practical class Features of theoretical and empirical types of research.	Analysis of research design.	LO 1	4	Working in small groups	Oral questioning, Solving situational problems
	SIWT/SIW Idealization, formalization, and the axiomatic method of research. ***SIWT assignment*** *Select one scientific hypothesis in*	Idealization, formalization, axiomatic method, hypothesis and assumption, theory-definition of research methods, their differences.	LO 1	1/6	Report, presentation, preparation of test tasks	Evaluation criteria for SIW/SIWT

	the field of medicine and describe which methods (idealization, formalization, axiomatics) can be used to test it.					
4.	**Lecture** Methods for planning scientific research work.	Planning research: from idea to plan. Purpose, objectives, hypothesis: differences, criteria. Object and subject: how to define them correctly.	LO 1	1	Overview	Feedback questions
	Practical class Choosing a topic for research work.	Formulating goals, objectives, and hypotheses. Practice: from topic → goal → hypothesis.	LO 2	3	Case-study	Solving situational problems
	SIWT/SIW Preparatory stage of research work. ***SIWT assignment*** *Develop a project plan for preparing for research work on a topic that interests you. Specify the goal, objectives, object, subject, hypothesis, and expected result. Format it as a "Project Passport" document.*	Before starting research work, define its main goals and objectives and develop a work model.	LO 2	2/6	Report, presentation, quizzes and tests	Evaluation criteria for SIWT/SIW
5	**Lecture** Primary sources of scientific information.	How to search for scientific information? PubMed, Scopus, Google Scholar: capabilities, differences. MeSH terms, filters.	LO 3	1	Overview	Feedback questions
	Practical class Studying scientific information sources: - PubMed, - Scopus, - Web of Science, - Google Scholar.	Searching PubMed and Scopus. Searching by MeSH, saving searches, exporting to a bibliography.	LO 3	3	Working in small groups	Oral questioning, Solving situational problems
	SIWT/SIW Rules for writing a literature review. ***SIWT assignment*** *Prepare a literature review (700–1000 words) on a chosen topic, using at least 5 sources from databases (Scopus, PubMed, etc.). Include the structure of the review, references, and a brief analysis of the sources.*	Analyze the available materials and form a new approach to the problem; Verify the results and conclusions based on the results of your own research; Demonstrate the differences between the author's research and previously published works.	LO 2	1/6	Report, presentation, preparation of test tasks	Evaluation criteria for SIW/SIWT
6.	**Lecture** Types of scientific information and documents.	Primary, secondary, tertiary. Article, monograph, dissertation.	LO 3	1	Overview	Feedback questions
	Practical class Scientific documents and publications.	Analysis of article structure (IMRaD).	LO 3	4	Case-study	Solving situational problems
	SIWT/SIW Classifiers and rubricators of information and reference systems. ***SIWT assignment*** Make a table comparing the	Universal Decimal Classification (UDC) Library and Bibliographic Classification (LBC).	LO 3	1/6	Report, presentation, preparation of test tasks	Evaluation criteria for SIW/SIWT

	principles of information classification in UDC and LBC. Give one example of a rubricator for medical topics. **Acceptance of the boundary control 1**				**Testing**	
7	**Lecture.** Methods for analyzing scientific articles using the IMRaD structure (introduction, methods, results, discussion).	The IMRaD structure. What to look for in each section. How to determine whether the results are reliable.	LO 2	1	Overview	Feedback questions
	Practical class Article analysis: methods and statistics without SPSS.	Table analysis: p-value, OR, RR, confidence interval. How to interpret without software?	LO 2	3	Working in small groups	Oral questioning, Solving situational problems
	SIWT/SIW Compiling and formatting a list of references. ***SIWT assignment*** *Compile a list of references for a scientific article (at least 10 sources), formatted in accordance with IST (Interstate Standard) or Vancouver style. Separately highlight sources that confirm the novelty of your topic.*	The main objective of the work. How this work differs from other works on the same topic and its novelty. Requirements and rules for formatting the list of references.	LO 2	1/6	Report, presentation, preparation of test tasks	Evaluation criteria for SIW/SIWT
8.	**Lecture** Fundamentals of scientific ethics.	Definition of scientific ethics. Basic principles of ethics in the scientific community.	LO 1	1	Overview	Feedback questions
	Practical class Scientific results and their publication, anti-plagiarism checks (Turnitin, antiplagiat.ru).	Defining types of scientific results. Interpreting reports, reducing borrowing. Publications, the importance of disseminating scientific results within the scientific community and among the general public.	LO 1	3	Case-study	Solving situational problems
	SIW/SIWT Violation of scientific ethics. ***SIWT assignment*** *Prepare a case study on the topic of violation of scientific ethics in a publication or thesis defense. Indicate the type of violation, possible consequences, and ethical standards that were violated.*	Violation of scientific ethics: - false statements as a result of deliberate or gross negligence in important scientific communication; - copyright infringement; - causing harm to the scientific work of others.	LO 1	2/6	Report, presentation, preparation of test tasks	Evaluation criteria for SIW/SIWT
9.	**Lecture** Regulatory and legal aspects of organizing scientific activities.	Management organization in research institutions, exercising the rights and responsibilities of research organization leaders.	LO 2	1	Overview	Feedback questions
	Practical class Organization of research institutes.	Determining the structure of research institutes, performing organizational functions.	LO 2	4	Working in small groups	Oral questioning, Solving situational

						problems
	SIWT/SIW Conducting research work in higher education institutions. ***SIWT assignment*** *Develop a structural model for organizing research work at a university (for example, in your department). Specify the roles of teachers, students, topics, and forms of research work. Present diagrams with explanations.*	Conducting scientific research in higher education institutions with the following objectives: - developing theoretical problems; - solving the most pressing socio-economic problems; - creating textbooks and teaching aids.	LO 2	1/6	Report, presentation, quizzes and tests	Evaluation criteria for SIW/SIWT
10	**Lecture** The system of training scientific personnel in the Republic of Kazakhstan.	Ways to improve the system of training scientific personnel in the Republic of Kazakhstan. Master's degree, residency, PhD.	LO 2	1	Overview	Feedback questions
	Practical class Training of scientific and scientific-pedagogical personnel.	Basic requirements for training scientific and scientific-pedagogical personnel in the Republic of Kazakhstan. Types of scientific and scientific-pedagogical personnel. Educational programs. Levels of education. Postgraduate education.	LO 2	3	Case-study	Solving situational problems
	SIWT/SIW Requirements for the preparation of dissertations in postgraduate education. ***SIWT assignment*** *Compare the structure of master's and doctoral dissertations. Prepare a comparison table, indicate the mandatory elements, volume, and scientific criteria. Add examples from real works (search in the NCTI database or university archives).*	Structure of master's dissertations (projects). Structure of doctoral dissertations.	LO 2	1/6	Report, presentation, preparation of test tasks	Evaluation criteria for SIW/SIWT
11	**Practical class** Forms of organizing student research work.	Scientific clubs, student research projects (SRP), conferences, publications.	LO 4	3	Working in small groups	Oral questioning, Solving situational problems
	SIWT/SIW Extracurricular forms of scientific research work by students. ***SIWT assignment*** *Make a list of extracurricular forms of scientific activity for students at your university (based on observation, surveys, or information searches), describing at least three specific forms.*	Scientific research work by students, training specialists with higher education in accordance with the requirements of a market economy.	LO 4	1/5	Report, presentation, quizzes and tests	Evaluation criteria for SIWT/SIW

12	**Practical class** Conditions for conducting student research work.	Project-oriented learning, the role of the supervisor, the research advisor.	LO 4	4	Case-study	Solving situational problems
	SIW/SIWT Improving students' scientific knowledge through participation in conferences and presentations. ***SIWT assignment*** *Prepare an abstract (150–200 words) for participation in a student scientific conference on a topic of your choice. Indicate the relevance, purpose, methods, and expected results.* **Acceptance of the boundary control 2**	The main factors in increasing students' cognitive activity include their awareness of their own capabilities, working on projects of their own choosing, meeting the requirements and abilities set by the teacher, the ability to organize independent work, etc.	LO 4	2/5	Report, presentation, preparation of test tasks **Testing**	Evaluation criteria for SIW/SIWT
Exam preparation and conducting				**15**		

9.	**Teaching methods and controls forms**	
9.1	Lectures	Introductory. Overview. Feedback questions
9.2	Practical classes	Oral answer, Solving situational problems, Case-study , Working in small groups
9.3	SIWT/SIW	Report, presentation, test preparation, Evaluation Criteria for SIWT/SIW
9.4	Midterm control	testing

10. Evaluation Criteria

10.1. Criteria for evaluating module learning outcomes

LO	Name of learning outcomes	Unsatisfactory	Satisfactory	Good	Excellent
1	1. Demonstrates knowledge of science and its classifications, knows the methodological foundations of scientific knowledge. Understands the main types of scientific research. Knows the characteristics of theoretical and experimental research. Has knowledge of the methods and methodology of scientific research.	Does not distinguish between the concepts of "science," "method," and "methodology." Does not understand the classification of research.	Defines basic terms, classifies types of research, but has difficulty with analysis.	Compares types of research, explains the differences between theoretical and empirical research.	Justifies the choice of methodological approach for a specific scientific task.
2	Knows methods for summarizing research results, requirements for preparing scientific reports, scientific articles, presentations, and presentation materials, and knows how science is managed in research institutions.	Does not know the rules for presenting results; does not know the principles of scientific management.	Knows the requirements for presentation, can prepare a simple report using a template.	Applies the rules of presentation to various types of work, justifies the structure of the article.	Develops their own structure for scientific work, taking into account the requirements and target audience.
3	Is able to search for new information when working with educational, general scientific, and specialized literature, and knows the main results of the latest research published in leading professional journals.	Not familiar with databases, unable to distinguish reliable sources.	Performs keyword searches, familiar with well-known databases.	Analyzes publications, assesses their relevance and scientific novelty.	Critically evaluates current research, suggests promising areas for further research.
4	Demonstrates their own knowledge and skills in conducting scientific research; ability to conduct literature searches and analyze scientific articles in independent study of the discipline; ability to work in a team.	Not capable of working independently; unable to analyze articles.	Performs tasks under supervision; uses simple search methods.	Independently analyzes articles, draws conclusions, interacts within a group.	Participates in joint research, contributes to project or research work.

10.2. Assessment Criteria of teaching methods and technologies

Checklist for practical classes

The form control	Mark	Criteria for evaluation
Oral answer	A (4,0;95-100%)	Fully and deeply answers the question. Demonstrates excellent knowledge of the material and confident use of terminology. Expresses thoughts logically and consistently. Provides examples, shows the ability to analyze and summarize. Confidently responds to the teacher's additional questions.
	A- (3,67; 90-94%)	The answer is generally complete and logical. Minor inaccuracies do not distort the meaning. Demonstrates deep knowledge and understanding of the topic. Shows good argumentation and confident speech.
	B+ (3,33;85-89%); B (3,0 ;80-84%); B- (2,67; 75-79%); C+ (2,33;70-74%).	-The material is covered fairly comprehensively. Knowledge is confident but lacks some details. Minor gaps or uncertainty may appear when answering clarifying questions. -The answer is correct but not always deep. Minor wording errors are acceptable. Uses examples, though not always appropriately. -The answer is generally correct but lacks sufficient argumentation. Some secondary aspects of the topic are not covered. Needs teacher's assistance for clarification. -The main content is understood. The answer is incomplete but correct. Terminology is used with little confidence.
	C 2,0;(65-69%); C- (1,67;60-64%); D+(1,33;55-59%) D (1,0;50-54%).	-The understanding of the topic is superficial. The answer is partially correct, lacks analysis. Errors are present but do not distort the meaning. -Contains inaccuracies and omits important points. The student struggles to answer clarifying questions. -The answer is incomplete and fragmented. Contains many mistakes. Requires constant assistance from the teacher. -Knowledge of the topic is limited, mainly reproduces memorized text. Shows almost no understanding of the meaning.
	FX(0.5;25-49)	The answer does not reveal the main content of the topic. Contains significant errors. Lacks logic and structure. Partial understanding of the topic.
	F(0;0-24)	The answer is missing or completely incorrect. Material is not learned. Shows no understanding even of basic concepts. Unable to answer even simple guiding questions.

The form control	Mark	Criteria for evaluation
Solving situational problems	A (4,0;95-100%)	The solution is completely correct and logically justified. Demonstrates deep understanding of the situation, causal relationships, and clinical reasoning. The optimal strategy is chosen. The answer is well-argued and based on evidence and logic.
	A- (3,67; 90-94%)	The solution is mostly correct with consistent logic. Minor inaccuracies do not affect the final outcome. Demonstrates understanding of the problem and provides confident reasoning.
	B+ (3,33;85-89%); B (3,0 ;80-84%); B- (2,67; 75-79%); C+ (2,33;70-74%).	-The solution is correct; analysis is present but lacks depth. Argumentation is somewhat incomplete. The main aspects are correctly identified. -The main solution is correct but lacks details. Logic is partly inconsistent. Justifications are provided but no consideration of alternatives. -The solution is partially correct but contains reasoning errors. Not all steps are logically justified. Instructor assistance is needed for clarification. -Shows understanding of the problem but the analysis is superficial. The solution is incomplete. Errors are non-critical. Demonstrates some independence in reasoning.
	C 2,0;(65-69%); C- (1,67;60-64%); D+(1,33;55-59%) D (1,0;50-54%).	-The solution is partly correct. Contains logical and argumentative mistakes. The reasoning is insufficient and fragmented. -The solution is superficial and lacks justification. Key analytical steps are missing. The answer is incomplete and uncertain. -The solution is mostly incorrect. There is an attempt to reason, but logic is flawed. Major conceptual errors. -The solution is wrong, though an attempt was made. Lacks understanding of the problem's essence. No logic or justification.
	FX(0.5;25-49)	The solution does not meet requirements. No understanding of the problem. No analysis or justification. Retake allowed.
	F(0;0-24)	No solution or completely incorrect one. No understanding of the task or reasoning attempt. Material not mastered.

Evaluation criteria	Level			
	Great	Good	Satisfaction	Dissatisfaction
	90 – 100	70-89	50-69	<50
Oral interview	35-40	25-34	20-24	< 20
Knowledge of the basic terms and definitions of the topic under consideration	10-10	7-9	7	<6
Knowledge of the basic principles of medical services	10-10	7-10	7	<6
The ability to determine the relationship of the topic under consideration with the future profession, to give specific practical examples	10-10	7-10	4-6	<6
Links to additional literary sources in the response, additional summary, analysis of medical publications	5-10	4-5	2-4	0-2
Solving problems or completing tasks	27-30	23-26	20-22	< 20
The ability to analyze data	9-10	8-9	7-8	<7
Ability to work with regulatory documents	9-10	8-9	6-7	<6
The ability to draw conclusions	9-10	7-8	7-7	<7
Testing	28 – 30	22-27	10 – 21	< 10

Checklist for SIW

The form control	Mark	Criteria for evaluation
Topic presentation	A (4,0;95-100%)	The presentation is of excellent quality. The topic is fully covered; the material is well-structured and logically presented. Visual aids (slides, charts, graphics) are effectively used. The speaker is confident, articulate, and expressive. Answers questions from the instructor and audience thoroughly and convincingly.
	A- (3,67; 90-94%)	The presentation is of high quality; the topic is almost fully covered. The structure is logical, though minor inaccuracies are present. The presenter demonstrates good knowledge and confidence. Answers to questions are generally correct.
	B+ (3,33;85-89%); B (3,0 ;80-84%); B- (2,67; 75-79%); C+ (2,33;70-74%).	- The topic is well covered, though not in all details. The presenter shows good knowledge but lacks depth in some areas. The presentation is engaging but not fully consistent. Answers are correct but not always well-supported. - The presentation is satisfactory. The topic is partially covered; minor errors are present. The delivery is confident but lacks strong reasoning. Answers are brief and lack analysis. - Main aspects of the topic are covered, but secondary ones are omitted. Material is presented simply, not always logically. Answers are partially correct. - The topic is partially covered. Errors and inaccuracies are present. Material is presented superficially, without analysis. The presentation lacks persuasiveness.
	C 2,0;(65-69%); C-(1,67;60-64%); D+(1,33;55-59%) D (1,0;50-54%).	- The presentation is formal and incomplete. Significant mistakes are present. Answers are superficial and lack arguments. - The topic is poorly covered with many inaccuracies. The presentation lacks structure and clarity. Answers are uncertain and incomplete. - The presentation is poorly prepared. Content is fragmented with logical mistakes. Some answers are incorrect. - The presentation is primitive; the topic is barely covered. Material lacks analysis and visuals. Answers are uncertain or missing.
	FX(0.5;25-49)	The presentation contains serious errors. The topic is not covered. Answers are missing or incorrect.
	F(0;0-24)	The presentation is missing or completely fails to meet requirements. Material is not learned. No understanding or reasoning is demonstrated.
Preparation and defense of the report	A (4,0;95-100%)	The report is of excellent quality. The topic is fully covered, well-structured, and deeply analyzed. Up-to-date sources and relevant examples are used. The speech is fluent, confident, and expressive. Answers to questions are comprehensive and well-argued.
	A- (3,67; 90-94%)	The report is of high quality; the topic is almost fully revealed. Logical and consistent, with minor inaccuracies. The presentation is confident but lacks strong expression. Answers are generally correct but not always complete.
	B+ (3,33;85-89%); B (3,0 ;80-84%);	- The topic is well covered. The material is relevant but lacks deep analysis. The presentation is confident, with minor hesitation. Answers are mostly correct.

	B- (2,67; 75-79%); C+ (2,33;70-74%).	- The topic is covered but not fully. Minor mistakes or inaccuracies are present. The analysis is superficial but logical. Answers are short or incomplete. - The report is done conscientiously but the topic is only partially covered. The material is presented without deep conclusions. The presentation lacks confidence; difficulties answering questions are observed. - The topic is partially covered. The material is limited and lacks logical flow. The presentation is unexpressive; some answers are correct.
	C 2,0;(65-69%); C-(1,67;60-64%); D+(1,33;55-59%) D (1,0;50-54%).	- The report contains errors and inaccuracies. The topic is poorly covered and lacks analysis. Answers to questions are uncertain and incomplete. - The report is primitive, with poor logic. The material lacks structure. Answers to questions are hesitant or missing. - The report is poorly prepared. The topic is barely covered. Answers are fragmented and inaccurate. - The report is formal and lacks analysis. The material is weak, with major errors. Answers are missing or incorrect.
	FX(0.5;25-49)	The report does not meet the requirements. The topic is not covered. Answers are missing or entirely wrong.
	F(0;0-24)	The report is missing or not completed at all. The material is not learned. The student has shown no understanding of the topic.
Preparation of test tasks	A (4,0;95-100%)	The student created high-quality test questions aligned with learning objectives. Questions are logically structured, clearly worded, error-free, and assess various cognitive levels (understanding, analysis, application). Presentation is neat and professional.
	A- (3,67; 90-94%)	Test questions are well-prepared and generally meet objectives, with minor inaccuracies or slight issues in wording or formatting. Variety of cognitive levels is maintained.
	B+ (3,33;85-89%); B (3,0 ;80-84%); B- (2,67; 75-79%); C+ (2,33;70-74%).	- Test questions are of good quality, covering main topics. However, some questions need clearer wording or do not fully assess the intended competencies. - Test questions are satisfactory. Most are correct, but there are some inaccuracies, lack of diversity, or uniform difficulty level. - The work is generally correct, but several significant issues in question phrasing or misalignment with learning objectives are present. - Test questions partially meet objectives; contain logical or linguistic errors, unclear structure, and lack balance in difficulty.
	C 2,0;(65-69%); C-(1,67;60-64%); D+(1,33;55-59%) D (1,0;50-54%).	- Most test questions are superficial, contain wording errors, or fail to reflect learning goals. - Test questions have multiple errors, low educational value, and do not align with the topic or course content. - Work contains serious mistakes, but shows understanding of the task and an attempt to apply knowledge. - The work contains many mistakes; test questions do not meet requirements or reflect learning objectives.
	FX(0.5;25-49)	Work is incomplete or formally done. Significant revision is required to reach the minimum acceptable level.
	F(0;0-24)	Task not completed; no understanding of objectives; test questions unrelated to the topic.

Evaluation criteria	90-100	70-89	50-69	<50
Deadline for delivery of SIW (on time, 1-2 days delay, 3 days delay, more than 4 days)	25-25	18-24	17-23	<13-16
The form of delivery of the SIW (number of pages / slides, number of test tasks) according to the requirements of the syllabus.	25-25	18-24	17-23	<13-16
Visibility (type and font size, use of graphics tools, image shapes, color differences, etc.)	20-25	17-24	10-16	<9-10
The use of literary sources	20-25	17	6-7	<4-5

Checklist for intermediate certification

Testing is evaluated in accordance with a multi-global knowledge assessment system.

Final examination

Mark by letter system	Numeric equivalent of points	Percentage	Mark by traditional system
A	4,0	95-100	Excellent
A -	3,67	90-94	
B +	3,33	85-89	Good

B	3,0	80-84	
B -	2,67	75-79	
C +	2,33	70-74	
C	2,0	65-69	Satisfactorily
C -	1,67	60-64	
D+	1,33	55-59	
D-	1,0	50-54	
FX	0,5	25-49	Unsatisfactory
F	0	0-24	

11. Learning resources

Electronic resources, including, but not limited to: databases, animation simulators, professional blogs, websites, other electronic reference materials (video, audio, digests)	Электронная библиотека ЮКМА - https://e-lib.skma.edu.kz/genres Республиканская межвузовская электронная библиотека (РМЭБ) – http://rmebrk.kz/ Цифровая библиотека «Aknurpress» - https://www.aknurpress.kz/ Электронная библиотека «Эпиграф» - http://www.elib.kz/ Эпиграф - портал мультимедийных учебников https://mbook.kz/ru/index/ ЭБС IPR SMART https://www.iprbookshop.ru/auth информационно-правовая система «Заң» - https://zan.kz/ru Medline Ultimate EBSCO eBook Medical Collection EBSCO Scopus - https://www.scopus.com/
Electronic textbooks	Ғылыми зерттеулер негіздері: оқу құралы (2-ші басылым). А.С. Кадыров, И.А. Кадырова, Ж.Ж. Жунусбекова. Қарағанды: «АҚНҰР» баспасы, 2023. – 76 бет./ https://aknurpress.kz/reader/web/1315 Основы научных исследований: монография (2-ое изд.). А.С. Кадыров, И.А. Кадырова. Караганда: издательство «АҚНҰР», 2023. – 310 с./ https://aknurpress.kz/reader/web/1316 Баймагамбетов С.З., Альжанова Р.С.Развитие системы здравоохранения Казахстана на рубеже веков (исторический анализ). – Учебное пособие. – Алматы: Эверо, 2020. https://www.elib.kz/ru/search/read_book/68/ Калиева, А.Б. Методы научных исследований : Учебное пособие. / Павлодарский государственный университет имени С. Торайгырова. - Павлодар: Кереку, 2016. - 90 с. / http://rmebrk.kz/book/1164988 Linda Farber Post, Jeffrey Blustein. Handbook for Health Care Ethics Committees. Ed.: Third edition. Baltimore : Johns Hopkins University Press. 2021 // eBook Collection EBSCO Jose Russo. Tools Of Science, The: The Handbook For The Apprentice Of Biomedical Research. Singapore : World Scientific. 2011 // eBook Collection EBSCO Hegde, M.N., Salvatore, Anthony P. Clinical Research in Communication Disorders, Principles and Strategies. Ed.: Fourth edition. San Diego, CA : Plural Publishing, Inc. 2021 // eBook Collection EBSCO John I. Gallin, Frederick P Ognibene, Laura Lee Johnson. Principles and Practice of Clinical Research. Ed.: Fourth edition. London : Academic Press. 2017 // eBook Collection EBSCO
Literature	Основная литература: Советова З. С. Ғылыми зерттеу негіздері және академиялық жазылым : оқу құралы / З. С. Советова. - Алматы : Aktaulova's, 2022. - 252 б. - Текст : непосредственный. Методология научных исследований в клинической медицине : учебное пособие / Н. В.

Долгушина [и др.]. - М. : ГЭОТАР Медицина, 2016. - 112 с.
Кадыров А. С. Ғылыми зерттеулер негіздері : оқу құралы / А. С. Кадыров, И. А. Кадырова, Ж. Ж. Жунусбекова. - Қарағанды : АҚНҰР, 2022. - 76 бет.
Жакенова С. Р. Основы предпринимательства : учебное пособие / С. Р. Жакенова, Л. К. Магзумова, Б. С. Битенова. - Караганда : АҚНҰР, 2021. - 262 с. - Текст : непосредственный.
Спандияров Е Ғылыми зерттеулер мен инновация негіздері .Оқу құралы ЭСПИ, 2021
Татиева, М. М. Особенности и проблемы использования интеллектуальной собственности и нематериальных активов в условиях инновационно-ориентированной экономики : учебное пособие / М. М. Татиева. - Алматы : ЭСПИ, 2021. - 84 б
Rosner, Bernard Fundamentals of Biostatistics [Text] : texbook / B. Rosner. - 8 nd ed. - [S. l.] : GENGAGE learning , 2016. - 927 p.
Дополнительная литература:
Кудайбергенова Г. У. Разработка проектно-сметной документации и бизнес-плана : лекционный комплекс / Г. У. Кудайбергенова. - [б. м.] : АО ЮКМА, 2025. - 107 с.
Дәріс кешені. Жобалау-сметалық құжаттаманы және бизнес-жоспарды технологиясы : дәріс кешені. - [б. м.], 2023. - 44 с.
Лекционный комплекс. Разработка проектно-сметной документации и бизнес-плана : лекционный комплекс. - [б. м.], 2023. - 52 с.
Татиева М.М. Методические рекомендации по оценке стоимости интеллектуальной собственности учебное пособие ЭСПИ, 2021
Койков, В. В. Надлежащая практика научных исследований: Избранные вопросы методологии биомедицинских исследований и исследований в медицинском образовании: исследование. - Караганда : АҚНҰР, 2014. - 140 с.
Спандияров, Е. Основы научных исследований и инновации: практическое пособие / Е. Спандияров ; М-во образования и науки РК. - Алматы : Эверо, 2013. - 136 с.

12. Subject policy

Requirements for students:
1. Do not skip classes without good reason.
2. Don't be late for classes.
3. Come to class in uniform.
4. Be active during practice sessions.
5. To prepare for classes.
6. Timely, on schedule, perform and submit independent work (SIW).
7. Do not engage in extraneous activities during classes.
8. Be tolerant, open and friendly to fellow students and teachers.
9. Observe safety precautions in the classroom and take care of the department's property.
10. The first boundary control of students' knowledge in the section "Public Health" is conducted on the 7th day of theoretical training with the results of boundary control-1 being posted in an electronic journal, taking into account penalty points for missing lectures (missing lectures in the form of penalty points are deducted from the boundary control assessment). The penalty point for skipping 1 lecture is 1.0 points. A student who fails to attend the border control without a valid reason is not allowed to take the exam in the discipline. The results of the border control are provided to the dean's office in the form of a report.

The second boundary control of students' knowledge in the section "Fundamentals of evidence-based medicine" is conducted on the 12th day of theoretical training with the results of boundary control-2 being posted in an electronic journal, taking into account penalty points for missing lectures (missing lectures in the form of penalty points are deducted from the boundary control assessment). The penalty point for skipping 1 Lecture is 2.0 points. A student who fails to attend the border control without a valid reason is not allowed to take the exam in the discipline. The results of the border control are provided to the dean's office in the form

of a report.

11. The SIW score is posted in the classroom, according to the schedule, in an electronic journal, taking into account penalty points for missing SIW classes. The penalty point for skipping 1 session of the SIWT is 2.0 points.

13	**Academic policy based on the moral and ethical values of the academy**
1.	**Mission** To be a recognized leader in the field of training competitive personnel!
	The Code of Honor: 1. The student strives to become a worthy citizen of the Republic of Kazakhstan, a professional in his chosen specialty, to develop the best qualities of a creative personality. 2. The student treats his elders with respect, does not allow rudeness towards others and shows empathy for socially vulnerable people and, as far as possible, takes care of them. 3. The student is a model of decency, culture and morality, is intolerant of immorality and does not allow discrimination based on gender, nationality or religion. 4. The student leads a healthy lifestyle and completely abandons bad habits. 5. The student respects the traditions of the university, protects its property, monitors cleanliness and order in the student dormitory. 6. The student recognizes the necessary and useful activities aimed at the development of creative activity (scientific, educational, sports, artistic, etc.), at improving the corporate culture and image of the university. 7. Outside the walls, the student always remembers that he is a representative of a higher school and makes every effort not to drop his honor and dignity. 8. The student considers it his duty to combat all types of academic dishonesty, including: cheating and asking others for help in passing knowledge control procedures; presenting any volume of ready-made educational materials (abstracts, term papers, tests, theses and other works), including online resources, as the results of his own work; circumvention Anti-plagiarism systems; using family or office connections to get a higher grade; absenteeism, tardiness and skipping classes without a valid reason. Registrar's Office AP 044/101-2022 Ed. No. 4 14 p. of 67 Academic policy of JSC " SKMA" 9. The student considers all the listed types of academic dishonesty as incompatible with obtaining a high-quality and competitive education worthy of the future economic, political and managerial elite of Kazakhstan
	Vision Effective system of medical and pharmaceutical education, based on the competence approach and the needs of practical public health and pharmaceutical industries, focused on the training of specialists that meet international quality and safety standards. Basic ethical principles, on which JSC " SKMA" relies for the realization of its mission: The principle of high professionalism the teaching staff of JSC " SKMA"– this is permanent improvement of their knowledge and skills, ensuring the provision of quality educational services for students at all levels of training. The principle of quality in JSC " SKMA" – this is the realization of conception of modernization of Kazakhstan education, the main direction of which is to ensure the modern quality of education based on the preservation of its fundamental and compliance with the actual and prospective needs of the individual, society and state, which is ensured by the use in the educational process, scientific-research activities and consultative and diagnostic work of innovative technologies and new achievements of science and practice. The principle of orientation training – this is the implementation of a student-centered learning process on flexible path of educational programs, taking into account the rapidly changing economic conditions and current trends in the labor market, the creation of maximum effective conditions for their professional growth, development of motivation and monitoring of training outcomes, continuous renovation of educational programs, expanding the volume of knowledge and competence, necessary for effective professional activity.
2.	Academic policy http://surl.li/eroik
3.	Grading Policy *Student's final mark* (FM) is given at the end of the course, and calculate as a sum of the *admission rating*

mark (ARM) and the *final control mark* (FCM) and is given according to the point-rating letter system.

FM=ARM+FCM

Admission rating mark (ARM) is equal to 60 points or 60% and includes: the *current control mark* (CCM) and *midterm control mark* (MCM).

The *current control mark* (CCM) is the average score for practical lessons and SIW.

The *midterm control mark* (MCM) is the average score of the two midterm controls.

The *admission rating mark* (60 points) is calculated via the formula:

$MCM_{average}$ x 0.2+$CCM_{average}$ x 0.4

Final control (FC) is carried out in the form of testing and the student can get 40 points or 40% of the total mark.

When testing, the student is asked 50 questions.

Calculation of final control is carried out as follows: If the student correctly answered 45 questions out of 50, it will be 90%.

90 x 0.4 = 36 points.

The final mark is calculated if the student has positive marks both in the admission rating (AR) = 30 points or 30% or more, and in the final control (FC) = 20 points or 20% or more.

The final grade (100 points) = $MCM_{average}$ x 0.2+$CCM_{average}$ x 0.4+FC x 0.4

A student who has received an unsatisfactory mark for one of the types of controls (MK1, MK2, $CC_{average}$) is not allowed to the exam.

Penalty points are subtracted from the average score of the current control.

14 Approval and revision

14 Approval and revision

Date of approval with the LIC	Protocol No.	Head of the LIC	Signature
«25» 06 2025 y.	№ 7	Derbicheva R.I.	
Approval date	**Protocol No.**	**Head of the Department Social health insurance and PH**	**Signature**
«26» 06 2025 y.	№ 16	Sarsenbayeva G.Zh.	
Approval date"Medicine"	**Protocol No.**	**Chairman of the EP "Medicine"**	**Signature**
«27» 06 2025 y.	№ 6	Auezkhankyzy D.	
Revision date	**Protocol No.**	**Head of the Department Social health insurance and PH**	**Signature**
«___» ___ 202__ y.	№ ___	Sarsenbayeva G.Zh.	
Revision date "Medicine"	**Protocol No.**	**Chairman of the EP "Medicine"**	**Signature**
«___» ___ 202__ y.	№ ___	Auezkhankyzy D.	