Syllabus

Departments: "Medical Biophysics and Information Technologies", "Social health insurance and public health" Work program of the subject "Introduction to scientific research" Educational program 6B10115 "Medicine"

1.	General infor	mation about the subject					
1.1	Subject codes:	ISR 2212	1.6	Academic year: 2024-2025			
1.2		Introduction to scientific research	1.7	Year: 2			
1.3		ICT, introduction to specialty	1.8	Semester: 4			
1.4		Hygiene and Epidemiology, Mandatory Social ace and Medical Law	1.9	Number of credits (ECTS): 6			
1.5	Cycle: BD		1.10	Component: UC			
2.	Subject descr	iption					
nationa deliver in usir	al healthcare str ry to the populat ng methods of c	study of public health policies in the Republic of Ka uctures, the role, and responsibility of the healthcare s ion. Application of healthcare regulatory acts in practic lescriptive statistics and hypothesis testing theory in pecialized software.	system al activ	in addressing issues of medical care vities. Development of practical skills			
3.	Summative assessment form						
3.1	Testing (MCQ	s) 🔽	3.5	Coursework			
3.2	Writing	. /	3.6	Essay			
3.3	Oral		3.7	Project			
3.4	OSPE (objecti	ve structured practical exam) 🔽	3.8	Other (specify)			
4.	Subject objec						
	of medical legislation, methods of statistical processing of medical data, working with application software, as well as skills in scientific analysis, critical thinking, and their practical application.						
		ysis, critical thinking, and their practical application.					
5.	Subject learn						
5. LO1.	Subject learn Demonstrates organizing inte	ing outcomes knowledge of organization, planning, and manager ernational cooperation in healthcare and methods of bio	ostatist	ics.			
	Subject learn Demonstrates organizing into Applies know and objectives	ing outcomes knowledge of organization, planning, and manager ernational cooperation in healthcare and methods of bio ledge of the fundamentals of scientific research for for , selecting research methods, and conducting informati	ostatist mulati ion sea	ics. ng hypotheses, setting research goals rches to prepare a literature review.			
LO1.	Subject learn Demonstrates organizing inte Applies know and objectives Selects the mo	ing outcomes knowledge of organization, planning, and manager ernational cooperation in healthcare and methods of bio edge of the fundamentals of scientific research for for , selecting research methods, and conducting informati st appropriate statistical procedures for describing med	ostatist mulation ion seau lical re	ics. ng hypotheses, setting research goals rches to prepare a literature review. search data.			
LO1. LO2.	Subject learn Demonstrates organizing into Applies know and objectives Selects the mo Uses statistica disability, and	ing outcomes knowledge of organization, planning, and manager ernational cooperation in healthcare and methods of bio ledge of the fundamentals of scientific research for for , selecting research methods, and conducting informati st appropriate statistical procedures for describing med l methods, including the STATISTICA software pack mortality, considering demographic and population he	ostatist mulatin ion sean lical re age, to ealth ind	ics. ng hypotheses, setting research goals rches to prepare a literature review. search data. describe medical data on morbidity, dicators.			
LO1. LO2. LO3.	Subject learn Demonstrates organizing into Applies know and objectives Selects the mo Uses statistica disability, and Integrates know	ing outcomes knowledge of organization, planning, and manager ernational cooperation in healthcare and methods of bio ledge of the fundamentals of scientific research for for , selecting research methods, and conducting informati st appropriate statistical procedures for describing med l methods, including the STATISTICA software packa	ostatist mulatin ion sear dical re age, to ealth ind lation, o	ics. ng hypotheses, setting research goals rches to prepare a literature review. search data. describe medical data on morbidity, dicators.			
LO1. LO2. LO3. LO4.	Subject learn Demonstrates organizing into Applies know and objectives Selects the mo Uses statistica disability, and Integrates know	ing outcomes knowledge of organization, planning, and manager ernational cooperation in healthcare and methods of bio ledge of the fundamentals of scientific research for for , selecting research methods, and conducting informati st appropriate statistical procedures for describing mee l methods, including the STATISTICA software packs mortality, considering demographic and population he wledge of deontological principles with medical legisl	ostatist mulatin ion sear lical re age, to ealth ind lation, o	ics. ng hypotheses, setting research goals rches to prepare a literature review. search data. describe medical data on morbidity, dicators. effectively applying the principles of			
LO1. LO2. LO3. LO4. LO5.	Subject learn Demonstrates organizing into Applies know and objectives Selects the mo Uses statistica disability, and Integrates kno ethics in relati Subject LO LO 1	ing outcomes knowledge of organization, planning, and manager ernational cooperation in healthcare and methods of bio ledge of the fundamentals of scientific research for for , selecting research methods, and conducting informati st appropriate statistical procedures for describing med l methods, including the STATISTICA software pack mortality, considering demographic and population he wledge of deontological principles with medical legisl onships between patients and healthcare professionals. The subject learning outcomes linked with educational LO 1. Applies in practice fundamental knowled	ostatist mulatin ion sean lical re age, to ealth ind lation, o al prog	ics. ng hypotheses, setting research goals rches to prepare a literature review. search data. describe medical data on morbidity, dicators. effectively applying the principles of ram learning outcomes			
LO1. LO2. LO3. LO4. LO5.	Subject learn Demonstrates organizing into Applies know and objectives Selects the mo Uses statistica disability, and Integrates kno ethics in relati Subject LO	ing outcomes knowledge of organization, planning, and manager ernational cooperation in healthcare and methods of bio ledge of the fundamentals of scientific research for for , selecting research methods, and conducting informati st appropriate statistical procedures for describing med l methods, including the STATISTICA software packs mortality, considering demographic and population he wledge of deontological principles with medical legisl onships between patients and healthcare professionals. The subject learning outcomes linked with educations LO 1. Applies in practice fundamental knowled epidemiological and socio-behavioral sciences.	ostatist rmulatin ion sear dical re age, to ealth ind lation, of al prog lge in	ics. ng hypotheses, setting research goals rches to prepare a literature review. search data. describe medical data on morbidity, dicators. effectively applying the principles of ram learning outcomes the field of biomedical, clinical,			
LO1. LO2. LO3. LO4. LO5.	Subject learn Demonstrates organizing into Applies know and objectives Selects the mo Uses statistica disability, and Integrates kno ethics in relati Subject LO LO 1	ing outcomes knowledge of organization, planning, and manager ernational cooperation in healthcare and methods of bid ledge of the fundamentals of scientific research for for , selecting research methods, and conducting informati st appropriate statistical procedures for describing med l methods, including the STATISTICA software pack mortality, considering demographic and population he wledge of deontological principles with medical legisl onships between patients and healthcare professionals. The subject learning outcomes linked with educations LO 1. Applies in practice fundamental knowled epidemiological and socio-behavioral sciences. LO 3. Carries out its activities within the framew	ostatist rmulatin ion sear lical re age, to ealth ind lation, o al prog lge in	ics. ng hypotheses, setting research goals rches to prepare a literature review. search data. describe medical data on morbidity, dicators. effectively applying the principles of ram learning outcomes the field of biomedical, clinical, the legislation of the Republic of			
LO1. LO2. LO3. LO4. LO5.	Subject learn Demonstrates organizing into Applies know and objectives Selects the mo Uses statistica disability, and Integrates kno ethics in relati Subject LO LO 1 LO 4 LO 5	ing outcomes knowledge of organization, planning, and manager ernational cooperation in healthcare and methods of bio ledge of the fundamentals of scientific research for for , selecting research methods, and conducting informati st appropriate statistical procedures for describing med l methods, including the STATISTICA software pack mortality, considering demographic and population he wledge of deontological principles with medical legisl onships between patients and healthcare professionals. The subject learning outcomes linked with educationa LO 1. Applies in practice fundamental knowled epidemiological and socio-behavioral sciences. LO 3. Carries out its activities within the framew Kazakhstan in the field of healthcare to ensure high-o	ostatist rmulatin ion seat lical re age, to alth ind lation, of al prog lge in vork of juality	ics. ng hypotheses, setting research goals rches to prepare a literature review. search data. describe medical data on morbidity, dicators. effectively applying the principles of ram learning outcomes the field of biomedical, clinical, the legislation of the Republic of medical care.			
LO1. LO2. LO3. LO4. LO5.	Subject learn Demonstrates organizing into Applies know and objectives Selects the mo Uses statistica disability, and Integrates kno ethics in relati Subject LO LO 1 LO 4	ing outcomes knowledge of organization, planning, and manager ernational cooperation in healthcare and methods of bio ledge of the fundamentals of scientific research for for , selecting research methods, and conducting informati st appropriate statistical procedures for describing med l methods, including the STATISTICA software pack mortality, considering demographic and population he wledge of deontological principles with medical legisl onships between patients and healthcare professionals. The subject learning outcomes linked with educational LO 1. Applies in practice fundamental knowled epidemiological and socio-behavioral sciences. LO 3. Carries out its activities within the framew Kazakhstan in the field of healthcare to ensure high-o LO 7. Complies with the norms of public health pr	ostatist rmulatin ion seat dical re age, to ealth ind lation, of al prog lge in vork of <u>uality</u> rotection	ics. ng hypotheses, setting research goals rches to prepare a literature review. search data. describe medical data on morbidity, dicators. effectively applying the principles of ram learning outcomes the field of biomedical, clinical, the legislation of the Republic of medical care. on, sanitary and hygienic regime and			
LO1. LO2. LO3. LO4. LO5.	Subject learn Demonstrates organizing into Applies know and objectives Selects the mo Uses statistica disability, and Integrates kno ethics in relati Subject LO LO 1 LO 4 LO 5	ing outcomes knowledge of organization, planning, and manager ernational cooperation in healthcare and methods of bio ledge of the fundamentals of scientific research for for , selecting research methods, and conducting informati st appropriate statistical procedures for describing med l methods, including the STATISTICA software pack mortality, considering demographic and population he wledge of deontological principles with medical legisl onships between patients and healthcare professionals. The subject learning outcomes linked with educationa LO 1. Applies in practice fundamental knowled epidemiological and socio-behavioral sciences. LO 3. Carries out its activities within the framew Kazakhstan in the field of healthcare to ensure high-o	ostatist rmulatin ion sear lical re age, to ealth ind lation, of al prog al prog lge in vork of juality rotectio idemio	ics. ng hypotheses, setting research goals rches to prepare a literature review. search data. describe medical data on morbidity, dicators. effectively applying the principles of ram learning outcomes the field of biomedical, clinical, f the legislation of the Republic of medical care. on, sanitary and hygienic regime and logical safety of the environment.			

 $-cdb_{\mathcal{D}}$ ςουτή καζακήσταν OŃTÚSTIK-QAZAQSTAN **SKMA** MEDISINA MEDICAL АКАДЕМІАХ АКАДЕМІАSY «Оңтүстік Қазақстан медицина академиясы» АҚ АСАРЕМҮ АО «Южно-Казахстанская медицинская академия» <u>, 11</u>, Departments: "Medical Biophysics and Information Technologies", № 35-11 (Б)-2024 "Social health insurance and public health" № 58 - 12 - 2024 Syllabus of the subject "Introduction to Scientific Research" 2 page out of 28 Kazakhstan, providing documentation of the processes of providing medical services. **Detailed about subjects** 6. 6.1 **Biostatistics** Venue: South Kazakhstan Medical Academy, main building, Department of Medical Biophysics and Information Technologies. Al-Farabi Square - 1, 5th floor, rooms No. 500-511. Phone 39-57-57, add 1063. Public health Venue: South Kazakhstan Medical Academy, 4th building, Department of Social Health Insurance and Public Health. Al-Farabi Square - 3b, 2nd floor, rooms No. 1-9. Phone 121, 122. 6.2 Number of hours Lectures Practical classes SIWT SIW **Biostatistics** 6 24 9 51 Public health 24 9 51 6 6.3 Subject study plan Classroom lessons # Week / day Subject name Lectures Pract. classes SIWT SIW 1st day 1st week 1 1 3 **Biostatistics** 1 6 2 2nd day 1st week 1 3 1 6 **Biostatistics** $3^{rd} day 1^{st} week$ 3 3 1 1 6 **Biostatistics** 4th day 1st week 4 1 3 **Biostatistics** 6 1 5th day 1st week 5 3 **Biostatistics** 1 1 6 6th day 2nd week 7 6 1 3 1 **Biostatistics** 7th day 2nd week 7 3 2 7 **Biostatistics** -8th day 2nd week 3 7 **Biostatistics** 8 1 _ $9^{\text{th}} \text{day} 2^{\text{nd}} \text{week}$ 3 9 1 Public health 1 6 10th day 2nd week 10 Public health 1 3 1 6 11th day 3rd week 3 Public health 11 1 1 6 12th day 3rd week 12 1 3 Public health 1 6 13th day 3rd week 3 13 Public health 1 1 6 $14^{\text{th}} \text{ day } 3^{\text{rd}} \text{ week}$ Public health 14 1 3 1 7 15th day 3rd week Public health 15 2 7 3 _ 16th day 4th week 16 3 7 Public health 1 _ 7. **Information about teachers** № Full name Degrees, Position Email **Department "Medical Biophysics and Information Technologies"** Ivanova Marina Borisovna PhD, Professor marina-iv@mail.ru 1. Ormanov Nurlan Kerimbekovich PhD. Professor 2. nurlanormanov2@gmail.com 3. Berdieva Meruert Aimambetovna PhD meruert_berdieva@mail.ru Maulenova Akmaral Aitbekovna Master degree, Senior teacher maral tasken@mail.ru 4. Imanbaeva Maral Amanbaevna Maste degree r, Senior teacher maral_81_19@mail.ru 5. **Department "Social Medical Insurance and Public Health"** magai_luybov@mail.ru Magay Luybov Nikolaevna Senior teacher, master degree 1. 2. Kudyarova Saltanat Abatovna teacher, master degree salta.deva@mail.ru Aidar Aliya teacher, master degree turaidar aa@mail.ru 3. 8. Thematic plan Forms/ Subj Numbe Forms/ Da Methods/ Topic **Brief content** ect r of Methods of Technologies y LO hours assessment of learning 1. Introduction to biostatistics. LO 1 1 Lecture-Feedback Lecture Definition of biostatistics. The role information / Introduction (quick to biostatistics. Stages of of biostatistics in medicine. Presentation questioning)

Stages of statistical research.

statistical research.

ОŃTÚSTIK-QAZAQSTAN MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ SOUTH KAZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия» Departments: "Medical Biophysics and Information Technologies", "Social health insurance and public health"

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		Research program and plan. Data collection. Data processing. Analysis, conclusions, suggestions.				
	Practical classIntroductiontobiostatistics.	Basic concepts and definitions. Types of statistical data. Basic types of measuring scales. Stages of statistical research.	LO 1 LO 3	3	Practice	Oral questioning. Practical work. (assessment using a checklist).
	SIWT/SIW Consultation on the implementation of an individual task 1 / History of the development of biostatistics /	Stages of the formation of science. Famous scientists in the field of biostatistics.	LO 1	1/5	Individual task 1	Logical flowchart (assessment using a checklist)
	Organizing project groups, selection project topics, discussing PjBL methodological recommendations, organizing a Trello workspace				PjBL Round table, brainstorming	
2.	Lecture Descriptive statistics.	Introduction to descriptive statistics. Frequency distribution. Histograms. "Stem and leaf". Measures of central tendency and dispersion. Data visualization. "Box and Whiskers".	LO 1	1	Lecture- information / Presentation	Feedback (quick questioning)
	Practical class Frequency distribution.	Frequency distribution and its numerical characteristics. Graphical representation of frequency distribution. Introduction to the STATISTICA program (the "Descriptive statistics" procedure)	LO 1 LO 3	3	Computer- based work / Solving situational tasks.	Oral questioning. Practical work. (assessment using a checklist).
	SIWT/SIW Consultation on the implementation of an individual task 2 / Creating an interval frequency distribution /	Calculation of the number of intervals, their width and limits. Sorting data. Frequency analysis.	LO 4	1/5	Individual task 2	Solving problems (assessment using a checklist)
	Stage 1. Goal setting. Definition (specification) of the problem, setting goals, objectives, hypotheses, choosing a project				PjBL "Round table", brainstorming, SWOT-analysis	Monitoring project progress on a Trello
3.	product Lecture	The specifics of the occurrence of	LO 1	1	Lecture-	Feedback
				•	•	•

	Normal distribution. Basics of the theory of statistical hypothesis testing. Goodness-of- fit tests.	normal distribution in the context of biology and medicine. Properties of normal distribution. Key concepts and definitions of the theory of statistical hypothesis testing. Procedure for testing statistical hypotheses. Types of errors in hypothesis testing. Pearson's goodness-of-fit test. Kolmogorov- Smirnov's goodness-of-fit test. Hypothesis testing of the normal	LO 1	3	information / Presentation	(quick questioning) Oral
	Basics of the theory of statistical hypothesis testing. Goodness-of- fit tests.	distribution of a sample. Pearson's goodness-of-fit test. Kolmogorov- Smirnov's goodness-of-fit test. Hypothesis testing of the normal distribution of a sample in the STATISTICA program.	LO 3 LO 4		based work / Solving situational tasks.	questioning. Practical work. (assessment using a checklist).
	SIWT/SIW Acceptance of SIW1 /Consultation on the implementation of an individual task 3 / Calculation of numerical characteristics of an interval frequency distribution, its graphi- cal representation. /	Calculation of numerical characteristics of an interval frequency distribution (mean, variance, standard deviation, range, coefficient of variation), its graphical representation (polygon, histogram, box plot, stem-and-leaf plot).	LO 4	1/5	Individual task 3	Solving problems (assessment using a checklist)
	Cal representation. 7 Stage 2. Planning. Planning the implementation of the project, describing the required product that satisfies the set goals, searching for means of implementing the project				PjBL Brainstorming, responsibility distribution matrix, Gantt chart, "road map"	Monitoring project progress on a Trello
4.	Lecture Parametric methods of comparative statistics	Difference between parametric and nonparametric statistical tests. Fisher test. Two-sample t-test. Paired Student's t test. One sample t- test. One-way analysis of variance.	LO 1	1	Lecture- information / Presentation	Feedback (quick questioning)
	Practical class Parametric methods of comparative statistics	Fisher's F-test (comparison of two sample variances). Hypothesis testing for the equality of two means using the t-test for independent samples. One-sample t-test. Hypothesis testing for the equality of two means using the t-test for dependent samples. Implementation of the t-test in the STATISTICA program.	LO 1 LO 3 LO 4	3	Computer- based work / Solving situational tasks.	Oral questioning. Practical work. (assessment using a checklist).

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	SIWT/SIW Acceptance of SIW 2 / Consultation on the implementation of an individual task 4 / Goodness-of-fit tests / Stage 3. Project implementation.	Hypothesis testing of the normal distribution of a sample. Pearson's goodness-of-fit test. Kolmogorov- Smirnov's goodness-of-fit test.	LO 1 LO 3 LO 4	1/5	Individual task 4 <i>PjBL</i> <i>Excursion to</i> <i>the library</i> -	problems (assessment using a checklist) <i>Monitoring</i> project progress on a
	Working with information sources				information center. Literature review, individual and group consultations	
5	Lecture Nonparametric methods of comparative statistics	Advantages and disadvantages of nonparametric tests. Mann-Whitney test. Wilcoxon test. Kruskal-Wallis test.	LO 1	1	Lecture- information / Presentation	Feedback (quick questioning)
	Practical class Nonparametric methods of comparative statistics	Mann-Whitney test. Wilcoxon test. Implementation of nonparametric tests in the STATISTICA program.	LO 1 LO 3 LO 4	3	Computer- based work / Solving situational tasks.	Oral questioning. Practical work. (assessment using a checklist).
	SIWT/SIW Consultation on the implementation of an individual task 5 / Testing the hypothesis of equality of two	Testing the hypothesis of equality of two means using Student's t-test for paired samples. Implementation of Student's t-test in the STATISTICA software.	LO 1 LO 3 LO 4	1/5	Individual task 5	5 Solving problems (assessment using a checklist)
	means using Student's t-test for paired samples./ Stage 3. Project implementation. Development of questionnaires, survey, primary analysis of the obtained data				PjBL Computer practical work with Google Forms, MS Excel	Monitoring project progress on a Trello
6.	Lecture Analysis of qualitative variables.	Definition of qualitative variables. Importance of analyzing qualitative variables in medical research. Types of qualitative variables (binary, nominal, ordinal). Construction of contingency tables of size 2x2 and size r x s. Pearson's chi-square test. Fisher's exact test. McNemar's chi-	LO 1	1	Lecture- information / Presentation	Feedback (quick questioning)
	Practical class	square test. 2x2 contingency tables. Pearson's	LO 1	3	Computer-	Oral

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	Analysis of qualitative variables.	chi-square test (2x2). Yates' correction. Fisher's exact test. McNemar's chi-square test. Contingency tables of size mxn. Pearson's chi-square test (r x s). Construction of contingency tables and implementation of chi-square tests in the STATISTICA program.	LO 3 LO 4		based work / Solving situational tasks.	questioning. Practical work. (assessment using a checklist).
	SIWT/SIW Consultation on the implementation of an individual task 6/ One- way analysis of variance (ANOVA). /Stage 3. Project implementation. Statistical analysis of the obtained data	One-way analysis of variance (ANOVA). Conditions for application. Implementation of ANOVA in the STATISTICA program.	LO 1 LO 3 LO 4	1/5	Individual task 6 <i>PjBL</i> <i>Computer</i> <i>practical work</i> <i>with MS Excel,</i> <i>Statistica 12</i>	Solving problems (assessment using a checklist) Monitoring project progress on a Trello
7.	Practical class Correlation analysis.	Introduction to correlation analysis. Pearson correlation coefficient. Interpretation of the correlation coefficient. Assessment of the significance of the correlation coefficient. Spearman's rank correlation coefficient. Implementation of correlation analysis in the STATISTICA program.	LO 1 LO 3 LO 4	3	Computer- based work / Solving situational tasks.	Oral questioning. Practical work. (assessment using a checklist).
	SIWT/SIW Consultation on the implementation of an individual task 6/ One- way analysis of variance (ANOVA). / Stage 3. Project implementation. Statistical analysis of the obtained data	Application scheme. Kruskal-Wallis test.	LO 1 LO 3 LO 4	2/6	Individual task 6 <i>PjBL</i> <i>Computer</i> <i>practical work</i> <i>with Google</i> <i>Docs, Canva</i>	Solving problems (assessment using a checklist) Monitoring project progress on a Trello
	Midterm control 1	Assessment of students' knowledge and skills based on the material covered in lectures, practical classes, and SIWT for topics 1–6.			Computer testing, MCQs	100-point scale assessment
8.	Practical class Regression analysis.	Estimation of linear regression parameters using the least squares method. Hypothesis testing for the significance of regression coefficients. Hypothesis testing for the significance of regression equation. Coefficient of determination. Implementation of regression analysis in the	LO 1 LO 3 LO 4	3	Computer- based work / Solving situational tasks.	Oral questioning. Practical work. (assessment using a checklist).



SOUTH КАZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия» М: 25, 11 (Б

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		STATISTICA program.				
	SIWT/SIW Acceptance of SIW 3/ Consultation on the completion of individual assignment 7 / Summarizing the material using logical	Odds ratio and relative risk.	LO 3	1/6	Individual task 7	Logical flowchart (assessment using a checklist)
	flowchart. / Stage 4. Project presentation				PjBL "Round table", public presentation	Assessment according to checklist
9.	Lecture. Public health and healthcare as a science. Introduction to scientific research.	The main task of public health and healthcare. Modern problems of population health in the countries of the world.The concept of the term "Science" and its classification. Defining the purpose of science in cognition "Public health and healthcare".	LO2	1	Introductory	Feedback questions
	Practical class Healthcare systems in Kazakhstan. Internati- onal cooperation in healthcare.	Health care in Kazakhstan. Structure of the health care system. Code of the Republic of Kazakhstan. On the health of the people and the health care system	LO3	3	Training cases, question and answer	Assessment using a check list
	SIW/SIWT Priority areas of public health protection.	Priorities in health care. The strategy "Kazakhstan-2050".	LO5	1/5	Report, presentation, preparation of test tasks	Evaluation criteria for SIW/SIWT
10.	Lecture Modern problems of demography in the Republic of Kazakhstan.	Demographic situation in Kazakhstan. Factors affecting demographic indicators. Population construction.	LO1 LO5	1	Thematic	Feedback questions
	Practical class Methodology of calcu- lation and analysis of medical and demogra- phic indicators.	Indicators of natural population movement. Special demographic indicators.	LO4	3	Training cases, case-study	Assessment interview using a checklist
	SIWT/SIW Demographic development of Kazakhstan.	Demographic security of Kazakhstan. Socio-demographic problems in Kazakhstan. Statistical processing of data.	LO1 LO3	1/5	Report, presentation, quizzes and tests	Evaluation criteria for SIW/SIWT
11.	Lecture Population health, morbidity and methods of their study.	Indicators of morbidity. Methods of studying morbidity. Health index.	LO4	1	Overview	Feedback questions
	Practical class Modern medical and social problems, health promotion issues.	Disease prevention. Dispenserisation. Screening.	LO5	3	Educ ational cases, case-study	Assessment using a check list



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	SIWT/SIW	Current state of morbidity. The	LO4	1/5	Report,	Evaluation
	Current trends in	main causes of diseases.	LU4	1/5	presentation,	criteria for
	morbidity of the	mani causes of uiseases.			preparation of	SIW/SIWT
	population of				test tasks	51 00 / 51 00 1
	Kazakhstan.				lest tasks	
12	Lecture	Types of disability. Features	LO2	1	Overview	Feedback
12	Disability and its	of different types of disability.	LOZ	1	Overview	questions
	types.	ordinerent types of disability.				questions
	Practical class	Composition of the medical and	LO1	3	Training cases,	Assessment
	Organisation and	social commission. Rules for	LO1 LO5	5	case-study	interview
	conduct of medical	conducting the medical and labour	LOJ		case-study	
						using a checklist
	and social expertise (MSE).	expert commission (VTEK). The rules of organisation of MSE and				Checklist
	(MBE).	-				
	CIN/T/CIN/	its stages.	1.02	1 /5	Demont	Evolution
	SIWT/SIW	Classification of <i>socially</i> significant	LO2	1/5	Report,	Evaluation
	Socially significant	diseases. Combating socially			presentation,	criteria for
	diseases and their	significant diseases.			quizzes and	SIWT/SIW
12	control	Trunce of modical activity I 1	LOI	1	tests Overview	En e el la cara la
13.	Lecture.	Types of medical activities. Levels of medical care. Forms of medical	LO1	1	Overview	Feedback
	Organization of					questions
	medical care for the	care.				
	population.	Trues of modical care Former of	LOS	2	Educational	A and a second sect
	Practical class	Types of medical care. Forms of	LO5	3		Assessment
	Medical care and its	medical care. Organization of			cases, case	using a check
	types.	specialized medical care.	LOI	1/5	study	list
	SIW/SIWT	Models of a healthy lifestyle:	LO1	1/5	Report,	Evaluation
	Medical and social	medical, educational, radical			presentation,	criteria for
	aspects of a healthy	political models.			preparation of	SIW/SIWT
14.	lifestyle. Lecture. Ethics.	Ethica cools chiectives and types	LO5	1	test tasks Thematic	Feedback
14.	Medical and ethical	Ethics - goals, objectives and types.	LUS	1	Thematic	
		Medical and ethical aspects of				questions
	aspects of health and disease.	health. Medical and ethical aspects of the disease.				
	Practical class		LO5	3	Tusining assas	A
		Definitions of the concept of	LUS	5	Training cases	Assessment
	Medical secrecy.	"medical secrecy". Objects of				using a check
	CIW/CIW/T	medical secrecy.	1.02	1 /5	Demont	list
	SIW/SIWT	Ethics of planning and conducting	LO3	1/5	Report,	Evaluation
	Ethical aspects of	research in the field of vaccine			presentation,	criteria for
	immunoprophylaxis of	prevention. The ethics of vaccination.			preparation of	SIW/SIWT
15.	diseases. Practical class		LO5	3	test tasks Educ	Accoment
15.		The principle of justice. The concept of universality of the	LOS	3		Assessment
	The universality of the ethical norm and the	ethical norm. Moral choice and			ational cases,	using a check
	uniqueness of moral	morality. The uniqueness of moral			case-study	list
	choice.	choice in medicine.				
	SIWT/SIW	The principle of confidentiality.	LO5	2/6	Report,	Evaluation
		Basic communication skills. The	L03	2/0	^	criteria for
	Confidentiality and communication with				presentation,	
		principle of the patient-centered			preparation of	SIW/SIWT
	the patient's relatives.	approach. Iatrogeny and the			test tasks	
	A agantanga of the	principle of confidentiality.			Testing	A
	Acceptance of the	Assessment of students' knowledge and skills based on the materials of			Testing	Assessment
	boundary control 2	and skins based on the materials of				according to

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АКАДЕМІАЅҮ (ая академия»
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		lectures, practica slings of 9-15 to					the checklist
16.	Practical task Ethical regulations	The rights and ol	bligations of and patients. The ttion, the e, the Geneva	LO5	3	Educ ational case case-study	Assessment s, using a check list
	SIW/SIWT	Transplantation:		LO1	1/6	Report,	Evaluation
	Moral, legal and organizational aspe of transplantation.	ects modernity. Mo transplantation. organ harvestin donors. The transplantation o	ral problems of Legal models of g from cadaveric legal basis of f human organs and ne Republic of	LOS		presentation preparation test tasks	, criteria for
Exan	n preparation and co				18		
9.		ds and controls forms			1		
9.1	Lectures	Biostatistics Lecture-information / Public health Introductory. Overvie	-	•	У		
9.2	Practical classes	Biostatistics Computer-based work (assessment using a c Public health Training cases, TBL c checklist	hecklist).		-	-	
9.3	SIWT/SIW	Biostatistics Individual task / Logi Project-Based learnin - "Round table", brai Gantt chart, "road ma individual and group - Monitoring project p - Computer practical - Public presentation Public health Report, presentation,	ng instorming, SWOT-ar ap", excursion to the consultations; progress on a Trello; work; (assessment accordin test preparation, Eval	alysis, library 1g to ch	responsib y-informat necklist)	ility distributi ion center. Li	on matrix,
9.4	Midterm control	Midterm control 1 - Computer testing, MC Midterm control 1 - testing	Biostatistics CQs (100-point scale				
10.	Evaluation Crit	eria					
10.1.		luating module learnin	ig outcomes				
LO	Name of learning outcomes	Unsatisfactory	Satisfactory		Goo		Excellent
1	Demonstrates knowledge of the organization, planning and management in	 it is difficult to define basic terms; does not formulate management principles; 	 can define basic terms; formulates the principles of management; 	ba 2) pri	formulate sic termin formulate inciples of anagement	ology; bass the 2)) formulates the asic terminology;) formulates the rinciples of anagement;



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	applying the rules of the organization of international cooperation in the field of health and biostatistics methods.	of planning; 4) does not formulate some methods of visual representation of data;	of planning; 4) does not formulate some methods of visual representation of data; 5) does not formulate the basic principles of working with the ASP "STATISTICA"	of planning; 4) does not formulate some methods of visual representation of data; 5) formulates the main methods of comparative statistics and communication assessment; 6) does not formulate the basic principles of working with the ASP «STATISTICA»	of planning; 4) formulates some methods of visual representation of data; 5) formulates the main methods of comparative statistics and communication assessment; 6) formulates the basic principles of working with the ASP «STATISTICA»
2	Operates with knowledge of the basics of scientific research to formulate a hypothesis, set goals and objectives of research, choosing methods of scientific research and searching for information to compile a literary review.	 does not formulate a research hypothesis; does not know how to search for information to compile a literary review; does not know how to formulate the basic requirements for the formulation of a scientific research hypothesis; 	 is able to search for information to compile a literary review; does not know how to formulate a research hypothesis; does not formulate the types of research; it is difficult to answer about the basic requirements for the formulation of a scientific research hypothesis. 	 interprets what scientific research methods exist; explains the main stages of scientific research; formulates a scientific research hypothesis; does not know how to use traditional library catalogs and databases, as well as perform online searches. 	 is able to search for information to compile a literary review; formulates hypotheses by choosing methods of scientific research; formulates the basic requirements for the formulation of a scientific research hypothesis; can competently use traditional library catalogs and databases without logical conflicts and speech errors.
3	Selects the most appropriate statistical procedures for describing medical research data.	 makes mistakes when choosing statistical indicators and parameters to describe statistical aggregates; makes mistakes when choosing methods for visual representation of data; 3) it is difficult to choose the necessary method to solve a specific problem; 	 selects some statistical indicators and parameters to describe statistical aggregates; defines some methods of visual representation of data; does not classify parametric and nonparametric methods for estimating the relationship between variables 	 selects the main statistical indicators and parameters for describing statistical aggregates; defines the main methods of visual representation of data; formulates an algorithm for choosing the necessary method to solve a specific problem; Classifies parametric and nonparametric methods of 	 specen errors. selects all the necessary statistical indicators and parameters to describe statistical aggregates; defines various methods of visual representation of data; formulates an al- gorithm for choosing the necessary method to solve a specific problem; Classifies para- metric and nonparametric methods of



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	as anaporton
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				comparative	comparative
				statistics;	statistics;
				5) does not classify	5) Classifies
				parametric and	parametric and
				nonparametric	nonparametric
				methods for	methods for
				estimating the	estimating the
				relationship between	relationship between
				variables	variables
4	It uses statistical methods, including the STATISTICA software package, to describe medical data on morbidity, disability and mortality, taking into account demographic and health indicators of the	 does not formulate how to calculate demographic and health indicators of the population; makes gross mistakes in calculating and evaluating indicators and parameters of statistical aggregates has no skills to work with the program STATISTICA 	 formulates how to calculate demographic and health indicators of the population; makes mistakes in calculating and evaluating indicators and parameters of statistical aggregates it is difficult to answer about morbidity, disability knows how to work with the 	 formulates how to calculate demographic and health indicators of the population; makes mistakes in calculating and evaluating indicators and parameters of statistical aggregates can answer about morbidity, disability knows how to work with the program 	 is able to calculate demographic and health indicators of the population; is able to calculate and evaluate indicators and parameters of statistical aggregates can answer about morbidity, disability knows how to work with the program STATISTICA
5	population.	1) it is difficult to	program STATISTICA 5) makes mistakes in interpreting the results of the decision 1) formulates about	STATISTICA 5) interprets the results of the decision 1) can list the	5) interprets the results of the decision1) formulates what is
	knowledge of the principles of deontology with medical legislation, effectively applying the principles of ethics of the relationship between the patient and healthcare professionals.	answer about the difference between medical ethics and deontology; 2) does not know how to formulate the principles of medical ethics; 3) cannot apply the principles of ethics of the relationship between the patient and employees;	the difference between medical ethics and deontology. 2) interprets the basic principles of medical ethics and deontology; 3) cannot integrate knowledge of the principles of deontology with medical legislation and apply the principles of ethics; 4) does not formulate the principles of medical ethics	 principles of medical ethics; 2) formulates about ethical principles; 3) formulates a code of ethics for healthcare; 4) knows about the difference between medical ethics and deontology. 5) cannot integrate knowledge of the principles of deontology with medical legislation and apply the principles of ethics; 	 included in the concept of health ethics; 2) formulates the basic principles of medical ethics and deontology; 3) formulates a code of ethics for healthcare; 4) can integrate knowledge of the principles of deontology with medical legislation and apply the principles of ethics; 5) applies the principles of the relationship between the patient and the



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Biostatistics № 1 - Knows the basic terms and - Knows the basic formulas - Able to determine the relate profession, gives specific p - Refers to additional lite analyzes medical publication 2 - Knows the basic terms and - Knows the basic terms and - Knows the basic formulas - Able to determine the relation profession, gives specific p 3 - Knows the basic formulas - Able to determine the relation of the profession, gives specific p 3 - Knows the basic formulas - Knows the basic formulas 4 - Does not know the terms - Does not know formulas 5 Solving situational predimension - Correctly chooses the state - Properly groups data. 1 - Correctly chooses formul - Compiles calculation table - Makes calculation table - Makes minor errors in calle - Makes minor errors where 3 - Correctly chooses the state - Properly groups data. 2 - Correctly chooses formul - Makes mistakes when gro - Correctly chooses formul - Compiles calculation table - Makes mistakes in calcul - Makes mistakes in calcul - Makes mistakes when gro - Correctly chooses the state - Makes mistakes when gro - Makes mistakes when gro - Makes mistakes when gro	ary sources when answering, has an acons. d definitions on the topic under considera or algorithm of a certain statistical proce lationship of the topic under consideration	edure. with the future dditional summary, ation.	Points	Mark Max 20
N₂ 1 - Knows the basic terms and - Knows the basic formulas - Able to determine the relate profession, gives specific p - Refers to additional lite analyzes medical publication 2 - Knows the basic terms and - Knows the basic formulas - Able to determine the relate profession, gives specific p 3 - Knows the basic formulas - Able to determine the relate profession, gives specific p 3 - Knows the basic formulas - Able to determine the relate profession, gives specific p 3 - Knows the basic formulas - Able to determine the relate profession, gives specific p 3 - Knows the basic formulas - Able to determine the relation of the profession, gives specific p 3 - Knows the basic formulas - Able to determine the relation of the profession, gives specific p 3 - Knows the basic formulas 4 - Does not know the terms - Does not know formulas 5 Solving situational profession - Knows the state - Properly groups data. 6 Correctly chooses formul - Correctly chooses formul - Correctly chooses formul - Correctly chooses formul 	d definitions on the topic under considerat or algorithm of a certain statistical proce- tionship of the topic under consideration ractical examples. ary sources when answering, has an acons. d definitions on the topic under considerat or algorithm of a certain statistical proce- lationship of the topic under consideration ractical examples.	edure. with the future dditional summary, ation.		
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 4 - Incorrectly chooses the st - Makes mistakes when gro - Makes mistakes when con - Makes mistakes in calculation - Doesn't know how to inter 				
 Makes mistakes when gro Makes mistakes when con Makes mistakes in calcul Doesn't know how to inter 				
 Makes mistakes when con- Makes mistakes in calculation Doesn't know how to inter 				
- Makes mistakes in calcul - Doesn't know how to inte			0.14	
- Doesn't know how to inte			0-14	Unsatisfactory
				Max 40
3. Practical work 1- Creates a spreadsheet of t			1	1v1ax 40
- Correctly enters data into				
-	ne right size.		35-40	Excellent
- Correctly interprets the re	ne right size. a spreadsheet.		55-40	LAUGHUH
• •	ne right size. a spreadsheet. l procedures and conducts analysis.			
2 - Creates a spreadsheet of t	ne right size. a spreadsheet. l procedures and conducts analysis. sult.		1	
- Correctly enters data into	ne right size. a spreadsheet. l procedures and conducts analysis. sult. dsheet and workbook.		30-34	Good

~	ОЙТÚSTIK-QAZAQSTAN MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ Оңтүстік Қазақстан медицинская академия»					
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	- Correctly selects statistical procedures and conducts analysis.					
	- Finds it difficult to interpret the result.					
	- Correctly saves the spreadsheet and workbook.					
3	- Creates a spreadsheet of the right size.					
	- Correctly enters data into a spreadsheet.		~			
	- Finds it difficult to choose a statistical procedure and conduct an analysis.	15-29	Satisfactory			
	- Finds it difficult to interpret the result.					
	- Correctly saves the spreadsheet and workbook.					
4	- Finds it difficult to create a spreadsheet of the right size.					
	- Makes mistakes when entering data into a spreadsheet.	0.4.4	** ! 0			
	- Finds it difficult to choose a statistical procedure and conduct an analysis.	0-14	Unsatisfactory			
	- Finds it difficult to interpret the result.					
	- Does not distinguish between saving a workbook and a spreadsheet.					
Ch	ecklist for SIW					
N⁰	Assessment Criteria	Points	Mark			
	SIW 1					
Ind	ividual task 1. Logic flowchart ¹]	Max 20			
1.	- The flowchart is simple and concise, placed on one page;					
	- Basic and sufficient concepts on the topic (section) are selected as elements of the					
	flowchart;					
	- Elements of the flowchart are located so that their hierarchy is clear (for example, general					
	and specific - in the center, on the periphery - auxiliary);	18-20	Excellent			
	- Logical connections are established between the elements of the flowchart (inside the	10 20				
		10 20				
	flowchart and external, i.e. interconnection with adjacent flowcharts);	10 20				
	flowchart and external, i.e. interconnection with adjacent flowcharts); - The flowchart is visual (easy to read): symbols, graphic material, color shades, tables,	10 20				
	flowchart and external, i.e. interconnection with adjacent flowcharts); - The flowchart is visual (easy to read): symbols, graphic material, color shades, tables, illustrated material are used.	10 20				
2.	 flowchart and external, i.e. interconnection with adjacent flowcharts); The flowchart is visual (easy to read): symbols, graphic material, color shades, tables, illustrated material are used. The flowchart is placed on one page; 					
2.	 flowchart and external, i.e. interconnection with adjacent flowcharts); The flowchart is visual (easy to read): symbols, graphic material, color shades, tables, illustrated material are used. The flowchart is placed on one page; Basic and sufficient concepts on the topic are selected as elements of the flowchart; 	10 20				
2.	 flowchart and external, i.e. interconnection with adjacent flowcharts); The flowchart is visual (easy to read): symbols, graphic material, color shades, tables, illustrated material are used. The flowchart is placed on one page; Basic and sufficient concepts on the topic are selected as elements of the flowchart; The hierarchy of the elements of the flowchart is not traced, the material is presented 					
2.	 flowchart and external, i.e. interconnection with adjacent flowcharts); The flowchart is visual (easy to read): symbols, graphic material, color shades, tables, illustrated material are used. The flowchart is placed on one page; Basic and sufficient concepts on the topic are selected as elements of the flowchart; The hierarchy of the elements of the flowchart is not traced, the material is presented chaotically; 	11-17	Good			
2.	 flowchart and external, i.e. interconnection with adjacent flowcharts); The flowchart is visual (easy to read): symbols, graphic material, color shades, tables, illustrated material are used. The flowchart is placed on one page; Basic and sufficient concepts on the topic are selected as elements of the flowchart; The hierarchy of the elements of the flowchart is not traced, the material is presented chaotically; Logical connections are established between the elements of the flowchart (inside the 		Good			
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2.	 flowchart and external, i.e. interconnection with adjacent flowcharts); The flowchart is visual (easy to read): symbols, graphic material, color shades, tables, illustrated material are used. The flowchart is placed on one page; Basic and sufficient concepts on the topic are selected as elements of the flowchart; The hierarchy of the elements of the flowchart is not traced, the material is presented chaotically; Logical connections are established between the elements of the flowchart (inside the 		Good			
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	 flowchart and external, i.e. interconnection with adjacent flowcharts); The flowchart is visual (easy to read): symbols, graphic material, color shades, tables, illustrated material are used. The flowchart is placed on one page; Basic and sufficient concepts on the topic are selected as elements of the flowchart; The hierarchy of the elements of the flowchart is not traced, the material is presented chaotically; Logical connections are established between the elements of the flowchart (inside the flowchart and external, i.e. interconnection with adjacent flowcharts); The flowchart is not illustrative. The flowchart is located on more than one page; 		Good			
	 flowchart and external, i.e. interconnection with adjacent flowcharts); The flowchart is visual (easy to read): symbols, graphic material, color shades, tables, illustrated material are used. The flowchart is placed on one page; Basic and sufficient concepts on the topic are selected as elements of the flowchart; The hierarchy of the elements of the flowchart is not traced, the material is presented chaotically; Logical connections are established between the elements of the flowchart (inside the flowchart and external, i.e. interconnection with adjacent flowcharts); The flowchart is not illustrative. The flowchart is located on more than one page; Elements of the flowchart are not basic and sufficient concepts on the topic; 	11-17				
	 flowchart and external, i.e. interconnection with adjacent flowcharts); The flowchart is visual (easy to read): symbols, graphic material, color shades, tables, illustrated material are used. The flowchart is placed on one page; Basic and sufficient concepts on the topic are selected as elements of the flowchart; The hierarchy of the elements of the flowchart is not traced, the material is presented chaotically; Logical connections are established between the elements of the flowchart (inside the flowchart and external, i.e. interconnection with adjacent flowcharts); The flowchart is not illustrative. The flowchart is located on more than one page; Elements of the flowchart are not basic and sufficient concepts on the topic; The hierarchy of the elements of the flowchart is not traced, the material is presented 		Good Satisfactory			
	 flowchart and external, i.e. interconnection with adjacent flowcharts); The flowchart is visual (easy to read): symbols, graphic material, color shades, tables, illustrated material are used. The flowchart is placed on one page; Basic and sufficient concepts on the topic are selected as elements of the flowchart; The hierarchy of the elements of the flowchart is not traced, the material is presented chaotically; Logical connections are established between the elements of the flowchart (inside the flowchart and external, i.e. interconnection with adjacent flowcharts); The flowchart is not illustrative. The flowchart is located on more than one page; Elements of the flowchart are not basic and sufficient concepts on the topic; The hierarchy of the elements of the flowchart is not traced, the material is presented chaotically; 	11-17				
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¹ Logic flowchart

The purpose of drawing up a logic flowchart is to form the integrity, consistency and consistency of knowledge. *Algorithm for constructing the logic flowchart:*

- reading the topic (section);

- repeated revision of the text in order to select the links between concepts and categories;
- selection of the most general concepts and categories;
- construction of a flowchart taking into account the identified relationships;
- final review of the text in order to compare it with the received scheme;
- final clarification of the scheme.

⁻ analysis of the text, select the main and secondary thoughts and concepts. Write out the basic concepts and categories;

SOUTH KAZAKHSTAN MEDICAL ACADEMY AO «Южно-Казахстанская медицинская академия»

Departments: "Medical Biophysics and Information Technologies",	№ 35-11 (Б)-2024
"Social health insurance and public health"	№ 58 - 12 - 2024
Syllabus of the subject "Introduction to Scientific Research"	14 page out of 28

Individa 1 T - T - T - T - T - F 2 T - T - F 3 T - F 3 T - F - A - F - A - F - A - F - A - F - A - A - F - A - A - F - A - A - A - A - A - A - A - A	The flowchart has not been completed. <i>tual task 2.</i> The number of intervals is correctly determined; The width and initial value of the first interval are correctly determined; The data is grouped correctly by intervals; The interval frequency distribution is correctly constructed; Frequency analysis has been carried out. The number of intervals is correctly determined; The number of intervals is correctly determined; The width and initial value of the first interval are correctly determined; Che width and initial value of the first interval are correctly determined; Che interval frequency distribution was constructed with minor errors. Frequency analysis has been carried out. The number of intervals is incorrectly determined; The width and initial value of the first interval were incorrectly determined; The width and initial value of the first interval were incorrectly determined; Che width and initial value of the first interval were incorrectly determined; Che width and initial value of the first interval were incorrectly determined; Che width and initial value of the first interval were incorrectly determined;	0 36-40 30-35 1-29	Unsatisfactory Max 40 Excellent Good Satisfactory			
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Che number of intervals is correctly determined; Che width and initial value of the first interval are correctly determined; Che data is grouped correctly by intervals; Che interval frequency distribution is correctly constructed; Frequency analysis has been carried out. Che number of intervals is correctly determined; Che width and initial value of the first interval are correctly determined; Errors were made when grouping data by intervals; Che interval frequency distribution was constructed with minor errors. Frequency analysis has been carried out. Che number of intervals is incorrectly determined; Che width and initial value of the first interval were incorrectly determined; Che width and initial value of the first interval were incorrectly determined; Che width and initial value of the first interval were incorrectly determined; Che width and initial value of the first interval were incorrectly determined; Che width and initial value of the first interval were incorrectly determined; Che width and initial value of the first interval were incorrectly determined; Che width and initial value of the first interval were incorrectly determined; Che width and initial value of the first interval were incorrectly determined; Che width and initial value of the first interval were incorrectly determined; Che width and initial value of the first interval were incorrectly determined; Che width and initial value of the first interval were incorrectly determined; Che width and initial value of the first interval were incorrectly determined; Che width and initial value of the first interval were incorrectly determined; Che width and initial value of the first interval were incorrectly determined; Che width and initial value of the first interval were incorrectly determined; Che width and initial value of the first interval were incorrectly determined; Che width and initial value of the first interval were incorrectly determined; Che width and initial value of the first interval were incorectly	36-40 30-35	Excellent Good			
- T - T - T - F 2 T - F - T - F 3 T - F - A - F - A - F 4 T	The width and initial value of the first interval are correctly determined; The data is grouped correctly by intervals; The interval frequency distribution is correctly constructed; Frequency analysis has been carried out. The number of intervals is correctly determined; The width and initial value of the first interval are correctly determined; Errors were made when grouping data by intervals; The interval frequency distribution was constructed with minor errors. Frequency analysis has been carried out. The number of intervals is incorrectly determined; The number of intervals is incorrectly determined; The number of intervals is incorrectly determined; The width and initial value of the first interval were incorrectly determined; Errors were made when grouping data by intervals; The width and initial value of the first interval were incorrectly determined; Errors were made when grouping data by intervals; An interval frequency distribution has been built; Frequency analysis was carried out incorrectly.	30-35	Good			
- T - T - F 2 T - T - T - F 3 T - T - F - A - F 4 T	The data is grouped correctly by intervals; The interval frequency distribution is correctly constructed; Frequency analysis has been carried out. The number of intervals is correctly determined; The width and initial value of the first interval are correctly determined; Errors were made when grouping data by intervals; The interval frequency distribution was constructed with minor errors. Frequency analysis has been carried out. The number of intervals is incorrectly determined; The width and initial value of the first interval were incorrectly determined; Errors were made when grouping data by intervals; The number of intervals is incorrectly determined; The width and initial value of the first interval were incorrectly determined; Errors were made when grouping data by intervals; An interval frequency distribution has been built; Frequency analysis was carried out incorrectly.	30-35	Good			
- T - F 2 T - T - T - T - T - T - T - T - A - F - 4 T	The interval frequency distribution is correctly constructed; Frequency analysis has been carried out. The number of intervals is correctly determined; The width and initial value of the first interval are correctly determined; Errors were made when grouping data by intervals; The interval frequency distribution was constructed with minor errors. Frequency analysis has been carried out. The number of intervals is incorrectly determined; The width and initial value of the first interval were incorrectly determined; Errors were made when grouping data by intervals; An interval frequency distribution has been built; Frequency analysis was carried out incorrectly.	30-35	Good			
- F 2 T - T - F - T - F 3 T - F - A - F 4 T	Frequency analysis has been carried out. The number of intervals is correctly determined; The width and initial value of the first interval are correctly determined; Errors were made when grouping data by intervals; The interval frequency distribution was constructed with minor errors. Frequency analysis has been carried out. The number of intervals is incorrectly determined; The width and initial value of the first interval were incorrectly determined; Errors were made when grouping data by intervals; The number of intervals is incorrectly determined; Errors were made when grouping data by intervals; An interval frequency distribution has been built; Frequency analysis was carried out incorrectly.					
2 T - T - E - T - F 3 T - T - F - A - F 4 T	The number of intervals is correctly determined; The width and initial value of the first interval are correctly determined; Errors were made when grouping data by intervals; The interval frequency distribution was constructed with minor errors. Frequency analysis has been carried out. The number of intervals is incorrectly determined; The width and initial value of the first interval were incorrectly determined; Errors were made when grouping data by intervals; An interval frequency distribution has been built; Frequency analysis was carried out incorrectly.					
- T - E - T - F - T - T - T - E - A - F 4 T	The width and initial value of the first interval are correctly determined; Errors were made when grouping data by intervals; The interval frequency distribution was constructed with minor errors. Frequency analysis has been carried out. The number of intervals is incorrectly determined; The width and initial value of the first interval were incorrectly determined; Errors were made when grouping data by intervals; An interval frequency distribution has been built; Frequency analysis was carried out incorrectly.					
- E - T - F 3 T - T - E - A - F 4 T	Errors were made when grouping data by intervals; The interval frequency distribution was constructed with minor errors. Frequency analysis has been carried out. The number of intervals is incorrectly determined; The width and initial value of the first interval were incorrectly determined; Errors were made when grouping data by intervals; An interval frequency distribution has been built; Frequency analysis was carried out incorrectly.					
- T - F 3 T - T - F - A - F 4 T	The interval frequency distribution was constructed with minor errors. Frequency analysis has been carried out. The number of intervals is incorrectly determined; The width and initial value of the first interval were incorrectly determined; Errors were made when grouping data by intervals; An interval frequency distribution has been built; Frequency analysis was carried out incorrectly.					
- F 3 T - T - E - A - F 4 T	Frequency analysis has been carried out. The number of intervals is incorrectly determined; The width and initial value of the first interval were incorrectly determined; Errors were made when grouping data by intervals; An interval frequency distribution has been built; Frequency analysis was carried out incorrectly.	1-29	Satisfactory			
3 T - T - E - A - F 4 T	The number of intervals is incorrectly determined; The width and initial value of the first interval were incorrectly determined; Errors were made when grouping data by intervals; An interval frequency distribution has been built; Frequency analysis was carried out incorrectly.	1-29	Satisfactory			
- T - E - A - F 4 T	The width and initial value of the first interval were incorrectly determined; Errors were made when grouping data by intervals; An interval frequency distribution has been built; Frequency analysis was carried out incorrectly.	1-29	Satisfactory			
- E - A - F 4 T	Errors were made when grouping data by intervals; An interval frequency distribution has been built; Frequency analysis was carried out incorrectly.	1-29	Satisfactory			
- A - F 4 T	An interval frequency distribution has been built; Frequency analysis was carried out incorrectly.	1 27	Satisfactory			
- F 4 T	Frequency analysis was carried out incorrectly.					
4 T						
	The task was not completed.	0	Unsatisfactory			
Individ	ual task 3.	-	Max 40			
	Numerical characteristics of the frequency distribution (mean, variance, standard					
	viation, range, coefficient of variation) are calculated correctly;					
	The interval frequency distribution is correctly presented graphically: a polygon, a	36-40	Excellent			
	stogram, a "box with whiskers", a "stem with leaves" are constructed;	50 10	Liteonom			
	The solution was checked in the STATISTICA program, a screenshot is attached.					
	When calculating the numerical characteristics of the frequency distribution, minor					
	rors were made, which were corrected by the student during testing;		~ .			
	Errors were made when constructing some graphs;	30-35	Good			
	The solution was checked in the STATISTICA program, a screenshot is attached.					
	When calculating the numerical characteristics of the frequency distribution, gross errors					
	ere made;	1.00				
	The graphs were built with errors;	1-29	Satisfactory			
	There is no screenshot of the solution in the STATISTICA program.					
	The task was not completed.	0	Unsatisfactory			
	SIW 2					
	ual task 4.	N	/Iax 100			
	The probabilities of hitting a random variable in the intervals are correctly determined;					
	A calculation table was created to determine the calculated value of Pearson's γ^2 -					
	A calculation table was created to determine the calculated value of Pearson's χ^2 - odness-of-fit test:					
go	odness-of-fit test;					
go - T	odness-of-fit test; The hypothesis about the normal distribution of the sample was tested in accordance with					
go - T the	odness-of-fit test; The hypothesis about the normal distribution of the sample was tested in accordance with e algorithm of Pearson's $\chi 2$ - goodness-of-fit test;					
go - T the - T	odness-of-fit test; The hypothesis about the normal distribution of the sample was tested in accordance with e algorithm of Pearson's $\chi 2$ - goodness-of-fit test; The result of the decision is interpreted correctly.	90-100	Excellent			
go - T the - T - T	odness-of-fit test; The hypothesis about the normal distribution of the sample was tested in accordance with e algorithm of Pearson's $\chi 2$ - goodness-of-fit test;	90-100	Excellent			
go - T the - T - T det	odness-of-fit test; The hypothesis about the normal distribution of the sample was tested in accordance with e algorithm of Pearson's $\chi 2$ - goodness-of-fit test; The result of the decision is interpreted correctly. The values of the theoretical distribution function of a random variable are correctly	90-100	Excellent			
go - T the - T det - A	odness-of-fit test; The hypothesis about the normal distribution of the sample was tested in accordance with e algorithm of Pearson's $\chi 2$ - goodness-of-fit test; The result of the decision is interpreted correctly. The values of the theoretical distribution function of a random variable are correctly termined;	90-100	Excellent			
go - T the - T deu - A Sn	odness-of-fit test; The hypothesis about the normal distribution of the sample was tested in accordance with e algorithm of Pearson's $\chi 2$ - goodness-of-fit test; The result of the decision is interpreted correctly. The values of the theoretical distribution function of a random variable are correctly termined; A calculation table was created to determine the calculated value of Kolmogorov-	90-100	Excellent			
go - T the - T det - A Sn - T	odness-of-fit test; The hypothesis about the normal distribution of the sample was tested in accordance with e algorithm of Pearson's χ^2 - goodness-of-fit test; The result of the decision is interpreted correctly. The values of the theoretical distribution function of a random variable are correctly termined; A calculation table was created to determine the calculated value of Kolmogorov- nirnov's λ - goodness-of-fit test;	90-100	Excellent			
go - T the - T de - 7 Sn - T the	odness-of-fit test; The hypothesis about the normal distribution of the sample was tested in accordance with e algorithm of Pearson's χ 2- goodness-of-fit test; The result of the decision is interpreted correctly. The values of the theoretical distribution function of a random variable are correctly termined; A calculation table was created to determine the calculated value of Kolmogorov- nirnov's λ - goodness-of-fit test; The hypothesis about the normal distribution of the sample was tested in accordance with	90-100	Excellent			
go - T the - T det - 7 Sn - T the - T	odness-of-fit test; The hypothesis about the normal distribution of the sample was tested in accordance with e algorithm of Pearson's $\chi 2$ - goodness-of-fit test; The result of the decision is interpreted correctly. The values of the theoretical distribution function of a random variable are correctly termined; A calculation table was created to determine the calculated value of Kolmogorov- nirnov's λ - goodness-of-fit test; The hypothesis about the normal distribution of the sample was tested in accordance with e algorithm of Kolmogorov-Smirnov's λ - goodness-of-fit test;	90-100	Excellent			
go - T the - T deu - A Sn - T the - T 2 N	odness-of-fit test; The hypothesis about the normal distribution of the sample was tested in accordance with e algorithm of Pearson's $\chi 2$ - goodness-of-fit test; The result of the decision is interpreted correctly. The values of the theoretical distribution function of a random variable are correctly termined; A calculation table was created to determine the calculated value of Kolmogorov- nirnov's λ - goodness-of-fit test; The hypothesis about the normal distribution of the sample was tested in accordance with e algorithm of Kolmogorov-Smirnov's λ - goodness-of-fit test; The result of the decision is interpreted correctly.					
go - T the - T - T det - A Sn - T the - T 2 N int	odness-of-fit test; The hypothesis about the normal distribution of the sample was tested in accordance with e algorithm of Pearson's χ^2 - goodness-of-fit test; The result of the decision is interpreted correctly. The values of the theoretical distribution function of a random variable are correctly termined; A calculation table was created to determine the calculated value of Kolmogorov- nirnov's λ - goodness-of-fit test; The hypothesis about the normal distribution of the sample was tested in accordance with e algorithm of Kolmogorov-Smirnov's λ - goodness-of-fit test; The result of the decision is interpreted correctly. Minor mistakes were made in determining the probabilities of a random variable falling	90-100 70-89	Excellent Good			

	OŃTÚSTIK-QAZAQSTAN MEDISINA AKADEMIASY						
~	«Оңтүстік Қазақстан медицина академиясы» АҚ 💛 АО «Южно-Казахстанская медицинская академия»						
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	Synabus of the subject infibude ton to selentine Research	15	page out of 28				
	- The hypothesis about the normal distribution of the sample was tested in accordance with						
	the algorithm of Pearson's χ^2 -goodness-of-fit test;						
	- The result of the decision is interpreted correctly.						
	- Minor mistakes were made when calculating the values of the theoretical distribution						
	function of a random variable:						
	- The calculation table for determining the calculated value of the Kolmogorov-Smirnov						
	λ - goodness-of-fit test contains minor mistakes;						
	- The hypothesis about the normal distribution of the sample was tested in accordance with						
	the algorithm of Kolmogorov-Smirnov's λ -goodness-of-fit test;						
	- The result of the decision is interpreted correctly.						
3.	- Mistakes were made in determining the probabilities of a random variable falling into						
5.	intervals;						
	- The calculation table for determining the calculated value of Pearson's χ^2 - goodness-of-						
	fit test contains mistakes;						
	- The hypothesis about the normal distribution of the sample according to Pearson's χ^2 -						
	goodness-of-fit test is tested incorrectly;						
	- The result of the solution is interpreted incorrectly;						
	- Mistakes were made when calculating the values of the theoretical distribution function	1-69	Satisfactory				
	of a random variable;						
	- The calculation table for determining the calculated value of Kolmogorov-Smirnov's λ -						
	goodness-of-fit test contains mistakes;						
	- The hypothesis about the normal distribution of the sample according to Kolmogorov-						
	Smirnov's χ^2 -goodness-of-fit test is tested incorrectly;						
	- The result of the solution is interpreted incorrectly;						
4.	- The hypothesis about the normal distribution of the sample was not tested using the						
ч.	Pearson and Kolmogorov-Smirnov goodness-of-fit tests.	0	Unsatisfactory				
	SIW 3						
	ividual task 5.		Max 40				
	- The null and alternative hypotheses are correctly formulated;						
	- The calculated value of the Student's t-test for dependent samples was calculated						
	correctly;						
	- The hypothesis was tested according to the Student's t-test algorithm for dependent	36-40	Excellent				
	samples;	50 10	LAconom				
	- The result of the decision is interpreted correctly;						
	- The solution was checked in the STATISTICA program, a screenshot is attached.						
2	- The null and alternative hypotheses are correctly formulated;						
-	- The calculated value of the Student's t-test for dependent samples was calculated						
	correctly;		~ .				
			Good				
1		30-35	0000				
	- The hypothesis was tested according to the Student's t-test algorithm for dependent	30-35	Good				
	- The hypothesis was tested according to the Student's t-test algorithm for dependent samples;	30-35	0000				
3	 The hypothesis was tested according to the Student's t-test algorithm for dependent samples; The result of the decision is interpreted correctly. 	30-35	Good				
3	 The hypothesis was tested according to the Student's t-test algorithm for dependent samples; The result of the decision is interpreted correctly. The null and alternative hypotheses are correctly formulated; 	30-35					
3	 The hypothesis was tested according to the Student's t-test algorithm for dependent samples; The result of the decision is interpreted correctly. The null and alternative hypotheses are correctly formulated; Errors were made in calculating the calculated value of the Student's t-test for 						
3	 The hypothesis was tested according to the Student's t-test algorithm for dependent samples; The result of the decision is interpreted correctly. The null and alternative hypotheses are correctly formulated; Errors were made in calculating the calculated value of the Student's t-test for dependent samples; 	30-35 1-29	Satisfactory				
3	 The hypothesis was tested according to the Student's t-test algorithm for dependent samples; The result of the decision is interpreted correctly. The null and alternative hypotheses are correctly formulated; Errors were made in calculating the calculated value of the Student's t-test for dependent samples; The hypothesis was tested according to the Student's t-test algorithm for dependent 						
3	 The hypothesis was tested according to the Student's t-test algorithm for dependent samples; The result of the decision is interpreted correctly. The null and alternative hypotheses are correctly formulated; Errors were made in calculating the calculated value of the Student's t-test for dependent samples; The hypothesis was tested according to the Student's t-test algorithm for dependent samples; 						
	 The hypothesis was tested according to the Student's t-test algorithm for dependent samples; The result of the decision is interpreted correctly. The null and alternative hypotheses are correctly formulated; Errors were made in calculating the calculated value of the Student's t-test for dependent samples; The hypothesis was tested according to the Student's t-test algorithm for dependent samples; The result of the decision is interpreted incorrectly. 	1-29	Satisfactory				
3	 The hypothesis was tested according to the Student's t-test algorithm for dependent samples; The result of the decision is interpreted correctly. The null and alternative hypotheses are correctly formulated; Errors were made in calculating the calculated value of the Student's t-test for dependent samples; The hypothesis was tested according to the Student's t-test algorithm for dependent samples; The result of the decision is interpreted incorrectly. The result of the decision is interpreted incorrectly. 						
4	 The hypothesis was tested according to the Student's t-test algorithm for dependent samples; The result of the decision is interpreted correctly. The null and alternative hypotheses are correctly formulated; Errors were made in calculating the calculated value of the Student's t-test for dependent samples; The hypothesis was tested according to the Student's t-test algorithm for dependent samples; The result of the decision is interpreted incorrectly. The result of the decision is interpreted incorrectly. The hypothesis of the equality of the two averages was incorrectly tested using the Student's t-test for dependent samples. 	1-29 0	Satisfactory Unsatisfactory				
4	 The hypothesis was tested according to the Student's t-test algorithm for dependent samples; The result of the decision is interpreted correctly. The null and alternative hypotheses are correctly formulated; Errors were made in calculating the calculated value of the Student's t-test for dependent samples; The hypothesis was tested according to the Student's t-test algorithm for dependent samples; The result of the decision is interpreted incorrectly. The result of the decision is interpreted incorrectly. 	1-29 0	Satisfactory				

«Оңтүстік Қазақстан медицина академиясы» АҚ АО «Южно-Казахстанская медиция Departments: "Medical Biophysics and Information Technologies", "Social health insurance and public health" Syllabus of the subject "Introduction to Scientific Research" - The hypothesis was tested according to the Fisher F-test algorithm; - The result of the decision is interpreted correctly; - The solution was checked in the STATISTICA program, a screenshot was attached; - The hypothesis was tested according to the Kruskal-Wallis algorithm; - The result of the decision is interpreted correctly; - The solution was checked in the STATISTICA program, a screenshot is attached. 2 - Correctly formulated null and alternative hypotheses; - Correctly calculated factor and residual variances; - The hypothesis was tested according to the Fisher F-test algorithm; - The result of the decision is interpreted correctly; - The hypothesis was tested according to the Fisher F-test algorithm; - Correctly formulated null and alternative hypotheses; - Correctly calculated factor and residual variances; - The result of the decision is interpreted correctly; - The hypothesis was tested according to the Fisher F-test algorithm; - The result of the decision is interpreted correctly; - The hypothesis was tested according to the Kruskal-Wallis algorithm; - The hypothesis was tested according to the Kruskal-Wallis algorithm;	Nº 3 Nº 1	5-11 (Б)-2024 58 - 12 - 2024 page out of 28
 The hypothesis was tested according to the Fisher F-test algorithm; The result of the decision is interpreted correctly; The solution was checked in the STATISTICA program, a screenshot was attached; The hypothesis was tested according to the Kruskal-Wallis algorithm; The result of the decision is interpreted correctly; The solution was checked in the STATISTICA program, a screenshot is attached. Correctly formulated null and alternative hypotheses; Correctly calculated factor and residual variances; The hypothesis was tested according to the Fisher F-test algorithm; The result of the decision is interpreted correctly; The hypothesis was tested according to the Fisher F-test algorithm; The result of the decision is interpreted correctly; The hypothesis was tested according to the Kruskal-Wallis algorithm; 		
 The result of the decision is interpreted correctly; The solution was checked in the STATISTICA program, a screenshot was attached; The hypothesis was tested according to the Kruskal-Wallis algorithm; The result of the decision is interpreted correctly; The solution was checked in the STATISTICA program, a screenshot is attached. 2 Correctly formulated null and alternative hypotheses; Correctly calculated factor and residual variances; The hypothesis was tested according to the Fisher F-test algorithm; The result of the decision is interpreted correctly; The hypothesis was tested according to the Kruskal-Wallis algorithm; 		
 Correctly calculated factor and residual variances; The hypothesis was tested according to the Fisher F-test algorithm; The result of the decision is interpreted correctly; The hypothesis was tested according to the Kruskal-Wallis algorithm; 		
- The result of the decision is interpreted correctly;	30-35	Good
 3 - Correctly formulated null and alternative hypotheses; - Errors were made when calculating factor and residual variance; - The hypothesis was tested according to the Fisher F-criterion algorithm; - The result of the decision is interpreted correctly; - The hypothesis was tested according to the Kruskal-Wallis algorithm; - The result of the decision was interpreted correctly. 	1-29	Satisfactory
4 - The task was not completed.		Unsatisfactory
Individual task 7. Logic flowchart 1. - The flowchart is simple and concise, placed on one page;	1	Max 20
 Basic and sufficient concepts on the topic (section) are selected as elements of the flowchart; Elements of the flowchart are located so that their hierarchy is clear (for example, general and specific - in the center, on the periphery - auxiliary); Logical connections are established between the elements of the flowchart (inside the flowchart and external, i.e. interconnection with adjacent flowcharts); The flowchart is visual (easy to read): symbols, graphic material, color shades, tables, illustrated material are used. 	18-20	Excellent
 2 The flowchart is placed on one page; - Basic and sufficient concepts on the topic are selected as elements of the flowchart; - The hierarchy of the elements of the flowchart is not traced, the material is presented chaotically; - Logical connections are established between the elements of the flowchart (inside the flowchart and external, i.e. interconnection with adjacent flowcharts); - The flowchart is not illustrative. 	11-17	Good
 3 The flowchart is located on more than one page; - Elements of the flowchart are not basic and sufficient concepts on the topic; - The hierarchy of the elements of the flowchart is not traced, the material is presented chaotically; - No logical ones are installed between the elements of the flowchart; - The flowchart is not illustrative. 	1-10	Satisfactory
4 The flowchart has not been completed.	0	Unsatisfactory
Checklist for evaluating project work		
Interim evaluation of the project work		Max 100
№ Criteria Description Determination The problems are clearly formulated, scientifically substantiated and	integrate	d mark
Determination The relevance of the research topic is well-reasoned. 1 situation and	-	13-20
relevance of the study well-reasoned. The problems are partially formulated, not substantiated. The releva	ance of th	

медізіла АКАДЕМІАSY «Оңтүстік Қазақстан медицина академиясы» АҚ Оңтүстік Қазақстан медицина академиясы» АҚ	ая академия»
Departments: "Medical Biophysics and Information Technologies",	№ 35-11 (Б)-2024
"Social health insurance and public health"	№ 58 - 12 - 2024
Syllabus of the subject "Introduction to Scientific Research"	17 page out of 28

		The problems are not formulated or superficially formulated. The relevance of the topic is not reflected.	0-4
		The goal is formulated clearly and concisely. The objectives of the study are fully consistent with the goal.	15-20
2	Setting a project goal and	The goal is formulated, but described in too much detail. The objectives of the study correspond to the goal.	10-14
2	defining tasks to achieve it	The goal is vaguely formulated. The objectives of the study partially correspond to the goal.	5-9
		The goal is vaguely formulated or not formulated. The objectives of the study do not correspond to the goal.	0-4
		The most relevant publications/studies published in full-text databases and in reputable publications are indicated. The links are listed in the text sequentially with the numbers.	15-20
		The publications/studies published in full-text databases from a limited number of sources are indicated. The links in the text are listed sequentially with numbers.	10-14
3	Selection and use of literature	The same type of publications/research published in open access on the Internet are indicated. Full-text databases and reputable publications are practically not used. Most of the sources do not relate to the topic of the project. The links are not specified in the text.	5-9
		Full-text databases and reputable publications are practically not used. Most of the sources do not relate to the topic of the project. The links are not specified in the text.	0-4
		Systematic publication of the results of the project work on the Trello board. The interim results of the project are presented on time.	15-20
4	Timely presentation of interim results	Periodic publication of the results of the project work on the Trello board. The interim results of the project are presented on time.	10-14
		Periodic publication of the results of the project work on the Trello board. The interim results of the project are not presented on time.	5-9
		The results of the project work were not published on the Trello board. The interim results of the project are not presented on time.	0-4
	Demonst	According to the interim results, there is a collective creative approach to solving problems, an even distribution of functions and well-coordinated work	15-20
5	Personal involvement,	According to the interim results, there is an even distribution of functions in the team, well-coordinated work	10-14
5	creative approach to	According to the interim results, there is an uneven distribution of functions in the team, well-coordinated work	5-9
	work	According to the interim results, there is a formal attitude of the participants to the work performed, there is no collective interaction	0-4
Ch	ecklist for project	work	Max 100
		The topic of the project is fully disclosed, during the presentation of the project, deep knowledge was demonstrated that goes beyond the scope of the program being studied. The research methods are described, the ways of achieving the goals are substantiated. Scientific terms are used, there is a free operation with them. Modern research methods are used.	15-20
1	Depth of disclosure of the project topic	The topic of the project is disclosed, during the presentation of the project, residual knowledge was demonstrated within the framework of the program being studied. The research methods are described, the ways of achieving the goals are substantiated. Scientific terms are not used enough. The text is presented in a logical sequence.	10-14
		The theme of the project is partially disclosed. The description of the project is not	5-9
		complete. Scientific terms are not used. The text is presented randomly.	



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Departments: "Medical Biophysics and Information Technologies",	№ 35-11 (Б)-2024
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Syllabus of the subject "Introduction to Scientific Research"	18 page out of 28

		complete. Scientific terms are not used. The text is presented randomly.		
		The results fully cover the research, they are objective, reliable. Tables,	figures	
		formulas are given. The applicability of the research results, the target co		
2		of the results are indicated.		
	Objectivity and	The results fully cover the research, they are objective, reliable. Tables,	, figures.	,
	reliability of the	formulas are given. The applicability of the research results, the target co		
	obtained results,	of the results are not indicated.		
	their practical	The results partially cover the research, they are objective, reliable. Tables	, figures	, 5-9
	significance	formulas are given in insufficient quantity.		
		The results do not cover research, they are not objective, not reliable	. Tables	0-4
		figures, formulas are not given or insufficiently given.		
		The conclusions are formulated correctly, argued and fully cover the resu	lts of the	15-20
		research.		
		The conclusions are formulated correctly, argued, but partially cover the n	results of	10-14
3	Formulation of	the research.		
5	conclusions	The conclusions are formulated incompletely, not sufficiently substanti	ated and	l 5-9
		partially cover the results of the research.		
		The conclusions are formulated incorrectly, not substantiated and partially	cover or	0-4
		do not cover the results of the research.		
		The goal of the project has been achieved. All assigned tasks have been co		
	Achievement of	The goal of the project as a whole has been achieved. Tasks have not be	een fully	10-14
4	the project goal	resolved.	1 (1	
	and solution of	The goal of the project was partially achieved. Not all tasks have been cor		5-9
	the set tasks	The goal of the project has not been achieved. The tasks set have been solved or not solved.	partially	0-4
		The project covers and discloses all sections. The text is presented in	a logical	1
		sequence, concisely, competently. The technical requirements for the desi	•	
		project are observed. The presentation is visual. During the presentation		
		demonstrates professional awareness and artistry.	speaker	
		The project covers and discloses all sections. The text is presented in	a logical	
		sequence. There are minor grammatical and stylistic mistakes. T		
		requirements for the design of the project are not fully met. The presentati		
	The project and presentation are designed in	visual. During the presentation speaker demonstrates professional aware		
		artistry.		
5		All sections are covered in the project. The logical sequence of the present	tation of	
	accordance with	the material is not always observed. There are grammar and stylistic 1		
	the requirements	Technical requirements for the design of the project are not met. The pres		
		is not visual. During the presentation speaker does not demonstrate	a deep)
1		knowledge of the topic, is constrained.		
		Not all sections are covered in the project. The logical sequence of preser		
1		the material is not respected. There are grammatical and stylistic errors. T		
		requirements for the design of the project are not met. The presentation is no		
		During the presentation speaker does not demonstrate a deep knowledg topic, finds it difficult to answer questions, is constrained.	ge of the	
Ch	ecklist for Midterr		N	/Iax 100
1		but in electronic form.	90-100	Excellent
2	The test contains		70-89	Good
3		is used for evaluation.	50-69	Satisfactory
4	-	termined by the teacher (no more than 50 minutes)		Unsatisfactory
	blic health	• • • • • • • • • • • • • • • • • • • •		j
	ecklist for practica	l classes		
	competitor practica			

OŃTÚSTIK-QAZAQSTAN

C (65-69%);

C-(60-64%);



SOUTH КАZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия» онтостик-Gazagsian MEDISINA АКАDEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ Departments: "Medical Biophysics and Information Technologies", № 35-11 (Б)-2024 "Social health insurance and public health" № 58 - 12 - 2024 Syllabus of the subject "Introduction to Scientific Research" 19 page out of 28

The form control	Mark	Criter	ria for evalua	tion			
	Excellent A (95-100%); A- (90-94%)	It is put in the event that the student dianswer. He orients himself in theories study and gives them a critical asses disciplines.	s, concepts an	d directions	s in the disci	pline under	
Oral	Good B+ (85-89%); B (80-84%); B- (75-79%); C+ (70-74%)	It is put in the event that the student during the answer did not make gross errors in the answer, made unprincipled inaccuracies or fundamental errors corrected by the student himself, managed to systematize the program material with the help of the teacher.					
answer	Satisfactory C (65-69%); C- (60-64%); D+ (50-54%)	It is put in the event that the student made inaccuracies and unprincipled mistakes during the answer, limited himself only to the educational literature indicated by the teacher, experienced great difficulties in systematizing the material.					
	Unsatisfactory FX (25-49%); F (0-24%).	It is put in the event that the student made fundamental mistakes during the answer, di not work through the main literature on the topic of the lesson; does not know how to use the scientific terminology of the discipline, answers with gross stylistic and logical errors.					
				Le	evel		
	Evalu	ation criteria	Great	Good	Satisfac- tion	Dissatis- faction	
			90-100	70-89	50-69	<50	
Oral interview	1		35-40	25-34	20-24	< 20	
Knowledge of consideration	the basic terms a	nd definitions of the topic under	10-10	7-9	7	<6	
	the basic princip	es of medical services	10-10	7-10	7	<6	
The ability to	determine the rela	tionship of the topic under of the specific practical	10-10	7-10	4-6	<6	
Links to addit	ional literary sour lysis of medical p	ces in the response, additional	5-10	4-5	2-4	0-2	
	ems or completing		27-30	23-26	20-22	< 20	
The ability to			9-10	8-9	7-8	<7	
	k with regulatory	documents	9-10	8-9	6-7	<6	
	draw conclusions		9-10	7-8	7-7	<7	
Testing			28 - 30	22-27	10 - 21	< 10	
Checklist for	SIW						
The form control	Mark	Criter	ria for evalua	tion			
	Excellent A (95-100%); A- (90-94%)	At least 5 literary sources were used.	dently, on time, with a volume of at least 20 slides. . The slides are informative and concise. During deep knowledge on the topic. Does not make during the discussion.				
Topic presentation	Good B+ (85-89%); B (80-84%); B- (75-79%); C+ (70-74%)	The presentation was made independently, on time, with a volume of at least 15 At least 4 literary sources were used. The slides are informative and concise. Du the defense, the author demonstrates good knowledge on the topic. Makes minor mistakes when answering questions that he corrects.				e. During	
	Satisfactory	The presentation was made independent	•				

At least 3 literary sources were used. The slides are not meaningful. When defending,

the author makes fundamental mistakes when answering questions.



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	D+(50-54%)					
	Unsatisfactory FX (25-49%); F (0-24%).	The presentation was not delivered on time 3 literary sources were used. The slides are author makes gross mistakes when answer material.	e not meaning question	ngful. When	n defending t focus on c	, the own
	Excellent A (95-100%); A- (90-94%)	The report was made accurately and delive least 15 typewritten pages, using at least 5 figures corresponding to the topic of the ab the text does not read, but tells. Confidentl asked.	literary sou	rces. Schen iven. When	nes, tables a defending	and a report,
Preparation and defense of the report	Good B+ (85-89%); B (80-84%); B- (75-79%); C+ (70-74%)	The report was made accurately and delive least 10 typewritten pages, using at least 4 figures corresponding to the topic of the at the text does not read, but tells. When answ	literary sou	rces. Schen viven. When	nes, tables a defending	and a report,
	Satisfactory C (65-69%); C- (60-64%); D+ (50-54%)	The report was made accurately and delive least 8 typewritten pages, using at least 3 li the text is read. Uncertainty answers quest	iterary sour	ces. When p	protecting t	he report,
	Unsatisfactory FX (25-49%); F (0-24%).	The abstract was not drawn up in detail, it was not submitted before the deadline. The topic does not show figures, tables. Read during the defense of the report. Made serious mistakes in answering the questions asked.				
	Great A (95-100%); A- (90-94%).	The test tasks contain at least 20 questions. Delivered on time. The basis of the test is substantial. The test tasks are formulated clearly, correctly, and concretely. Similar and adequate answers. There is a response algorithm. The correct answers are marked correctly.				Similar
Preparation of test tasks	Good B+ (85-89%); B (80-84%); B- (75-79%); C+ (70-74%).	The test tasks contain at least 18 questions substantial. The test tasks are formulated c different types of answers. There is a response marked correctly.	learly, corre	ectly, and co	oncretely. 7	There are
	Satisfactory C (65-69%); C- (60-64%); D+ (50-54%).	The test tasks contain at least 15 questions not meaningful. There are test tasks that ar incompletely. There are different types of a all correct answers are marked correctly.	e formulate	d vaguely, i	incorrectly,	and
	Unsatisfactory FX (25-49%); F (0-24%).	The test tasks contain at least 10 questions question is unclear. There are different typ algorithm. More than 50% of the correct an	es of answe	ers. There is	no respons	
Evaluation crit	teria	~~~~~	90-100	70-89	50-69	<50
Deadline for d than 4 days)	elivery of SIW (or	n time, 1-2 days delay, 3 days delay, more	25-25	18-24	17-23	<13-16
The form of delivery of the SIW (number of pages / slides_number of test				<13-16		
Visibility (type and font size, use of graphics tools, image shapes, color				<9-10		
The use of lite			20-25	17	6-7	<4-5
	intermediate cer	tification				
Border control/	Great A (95-100%);	It is set if the student did not make any mis He is guided by theories, concepts and dire them a critical assessment, uses scientific a	ections in th	ne studied di	iscipline an	d gives
Oral, situational	A- (90-94%).	correct answers on the tests				



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$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{c c} \mbox{problem} & \mbox{Good} \\ \mbox{solving} & \mbox{B+}(85\text{-}89\%); \\ \mbox{B+}(85\text{-}89\%); \\ \mbox{B-}(75\text{-}79\%); \\ \mbox{C+}(70\text{-}74\%). \\ \hline \mbox{Satisfactory} \\ \mbox{C+}(65\text{-}69\%); \\ \mbox{C-}(60\text{-}64\%); \\ \mbox{D+}(55\text{-}59\%); \\ \mbox{D}(50\text{-}54\%). \\ \hline \mbox{Unsatisfactory} \\ \hline \mbox{Unsatisfactory} \end{array}$		 made unprincipled inaccuracies or fundamental en systematize the program mater on tests It is posed if the student made answer, limited himself only to experienced great difficulties i on tests It is put in the event that the str 	rial with inaccura the edu n system udent ma	rected by the s the help of a to acies and unpri- icational litera natizing the ma	eacher. 75-89% correct answers	
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 Excellent B+ 3,33 85-89 Excellent B+ 3,00 80-84 Good C+ 2,67 75-79 Good C 2,00 65-69 Excellent C- 1,67 60-64 Satisfactorily D+ 1,33 55-59 Excellent FX 0.5 25-49 Unsatisfactory FX 0.5 25-49 Unsatisfactory IL Learning resources Electronic reforence materials (video, audio, digests) Statistical online - checks assumptions, interprets results (statskingdom.com) Video-lectures Statistics online - checks assumptions, interprets results (statskingdom.com) T-kprrepril CTsionerra https://media.skma.edu.kz/video/pppppppppp Ne Title Link Intps://www.aknupress.kz/ 4 Electronic Library https://media.skma.edu.kz/vi							
Mark by letter systemNumeric equivalent of pointsPercentageMark by traditional systemA4,095-100ExcellentA -3,6790-94ExcellentB +3,3385-89600B -2,6775-79600C +2,3370-74600C -1,6760-64SatisfactorilyD+1,3355-5955-59D-1,050-5454FX0,525-49UnsatisfactoryILearning resourcesElectronic reference materials (video, audio, digests)10Statistical online calculatorsStatistics online - checks assumptions, interprets results (statskingdom.com)10Video-lecturesT-tspurepri/C Tristoperra https://media.skma.edu.kz/video/ppppppppppKoppeляционный анализ https://media.skma.edu.kz/video/ppppppppppNeTitleLink1SKMA Electronic Libraryhttps://c-lib.skma.edu.kz/video/pppppppppp2Republican Interuniversity Electronic Libraryhttps://media.skma.edu.kz/video/pppppppppp2Republican Interuniversity Electronic Libraryhttps://media.skma.edu.kz/video/ppppppppp3GAknurpress» Digital Libraryhttps://media.skma.edu.kz/video/pppppppp4Electronic Libraryhttps://media.skma.edu.kz/video/ppppppppp73GC IPR SMARThttps://www.iprbookshop.ru/auth8Cochrane Libraryhttps://www.iprbookshop.ru/auth9Statisticy ontinedia textbookshttps://www.iprbookshop.ru/auth1Statistro ont		I' (0-24%).	errors. Less than 50% of the co		isweis on the t	5515.	
A4,095-100ExcellentA -3,6790-94ExcellentB +3,3385-89600B -2,6775-79600C +2,3370-74600C -2,065-6965-69C -1,6760-64SatisfactorilyD +1,3355-59600FX0,525-49UnsatisfactoryFX0,525-49UnsatisfactoryVideo-lecturesStatistical online calculatorsStatistical online calculatorsVideo-lecturesStatistical online calculatorsStatistical online calculatorsNeTitleLink1SKMA Electro				Γ			
A - 3,67 90-94 Excellent B + 3,33 85-89 B B 3,0 80-84 Good C + 2,67 75-79 Good C + 2,33 70-74 Good C - 1,67 60-64 Satisfactorily D+ 1,33 55-59 Do- D- 1,0 50-54 FX F F 0 0-24 Unsatisfactory IL Learning resources Electronic resources, including, but not limited to: databases, animation simulators, professional blogs, websites, other electronic reference materials (video, audio, digets) Statistical online calculators Statistical online calculators Statistical online calculators T-критерий Стыодента https://media.skma.edu.kz/video/pppppppppp Keppeляционный анализ https://media.skma.edu.kz/video/pppppppppp Koppeляционный anaлиз https://www.alnurpress.kz/ 1 SKMA Electronic Library https://www.elib.kz/ 3 «Aknurpress» Digital Library https://www.elib.kz/ 4 Electronic library "Epigraph" https://www.elib.kz/ 5		ter system	· · · · ·			Mark by traditional system	
A -3,6/90-94B +3,3385-89B3,080-84B -2,6775-79C +2,3370-74C2,065-69C -1,6760-64D+1,3355-59D-1,050-54FX0,525-49UnsatisfactoryFO0-24UnsatisfactoryT-kp#rep## Crsioge####################################						Excellent	
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"Social health insurance and public health"	№ 58 - 12 - 2024
Syllabus of the subject "Introduction to Scientific Research"	22 page out of 28

4. Медициналық-биологиялық деректерді статистикалық талдауда excel және spss statistics бағдарламаларын қолдану. Чудиновских В.Р., Каипова А.Ш., Алтаева А.У., Абдикадыр Ж.Н. https://aknurpress.kz/reader/web/1341 5. Медициналық-биологиялық зерттеулердегі статистикалық жорамалдарды тексеруге арналған компьютерлік бағдарламаларды қолдану. Чудиновских В.Р., Абдикадыр Ж.Н., Каипова А.Ш. https://aknurpress.kz/reader/web/1343 6. Койчубеков Б.К., Сорокина М.А., Букеева А.С., Такуадина А.И. БИОСТАТИСТИКА в примерах и задачах: Учебно-метод. посо-бие/– Алматы TOO «Эверо», 2020. – 80 с. https://elib.kz/ru/search/read book/870/ 7. Б.К. Койчубеков және т.б. Биостатистикаға кіріспе курсы: оқу құралы/ Б.К.Койчубеков, Абдыкешова Д.Т., Алибиева Д.Т.– Алматы: «Эверо» баспасы, 2020. – 102 б. https://elib.kz/ru/search/read book/868/ 8. Койчубеков Б.К., Букеева А.С., Такуадина А.И., Жунусова Г.Т., Абдыкешова Д.Т. Мысалдар мен тапсырмалардағы биостатистика. Оқу-әдістемелік құрал – Алматы, Эверо, 2020.- 108 б. https://elib.kz/ru/search/read_book/869/ 9. Койчубеков Б.К. Биостатистика: Учебное пособие – Издательство «Эверо», Алматы, 2020, 154 с. https://elib.kz/ru/search/read book/867/ 10.В.Р. Чудиновских, Ж.Н. Абдикадыр. Применение компьютерных программ для проверки статистических гипотез в медико-биологических исследованиях: учебное пособие. – Караганда: ИП «Издательство АКНҰР».-2016, 100 c. https://aknurpress.kz/reader/web/1344 11. В.Р. Чудиновских, Ж.Н. Абдикадыр, А.Ш. Каипова, А.У. Алтаева. Применение программ EXCEL и SPSS Statistics для статистического анализа медико-биологических данных: учебное пособие. – Караганда: ИП «Издательство АҚНҰР».- 2016, 128с. https://aknurpress.kz/reader/web/1342 **Public health** 1. Лисицын, Ю. П. Общественное здоровье и здравоохранение [Электронный ресурс]: учебник / Ю. П. Лисицын, Г. Э. Улумбекова. - 3-е изд., перераб. и доп. - Электрон. текстовые дан. (43,1Мб). - М: ГЭОТАР - Медиа, 2019. эл. опт. 2. Медик, В. А. Общественное здоровье и здравоохранение [Электронный ресурс]: учебник / В. А. Медик, В. К. Юрьев. - Электрон. текстовые дан. (47,6 Мб). - М: ГЭОТАР - Медиа, 2013. - 608 с. эл. 3. Бөлешов М.Ә.Қоғамдық денсаулық және денсаулық сақтау: оқулық /М.Ә. Бёлешов.- Алматы: Эверо, 2020. -244 Get. https://www.elib.kz/ru/search/read book/674/ 4. Баймагамбетов С.З., Альжанова Р.С. Развитие системы здравоохранения Казахстана на рубеже веков (исторический анализ). – Уч.пособие. – Алматы: Эверо, 2020.120 с. ttps://www.elib.kz/ru/search/read book/68/ 5. Здоровье населения и здравоохранение Республики Казахстан. (White Paper) Аканов А., Мейманалиев Т.Алматы, издательство Эверо, 2020. – 80 с. https://www.elib.kz/ru/search/read book/145/ 6. Рыманов Д.М., Купанова С.А.Этика управления в здравоохранении: учебно-методический комплекс. Денсаулық сақтауды басқару этикасы: Оқ-әдістемелік кешен/Рыманов, Д.М., Купанова С.А. – Алматы: Эверо, 2020. – 176 crp. https://www.elib.kz/ru/search/read_book/382/ 7. Қоғамдық денсаулықты сақтау. Сарсенбаева Г.Ж., 2019 https://www.aknurpress.kz/reader/web/1362 Software 1.MS Excel 2.STATISTICA Literature **Biostatistics** Main 1. Чудиновских В.Р. Абдикадыр Ж.Н. Медициналық биологиялық деректерді статистикалық талдауда ЕХСЕL және SPSS statistics бағдарламаларын қолдану. Оқу құралы.- ИП "АҚНҰР", 2021 2. Чудиновских В.Р. Абдикадыр Ж.Н. Применение программ EXCEL и SPSS statistics для статистического анализа медико-биологических данных. Учебное пособие.- ИП "АҚНҰР", 2021 3. Койчубеков Б. К. Биостатистика. уч. пособие / Б.К. Койчубеков. - Алматы: Эверо, 2016. - 152 с. 4. Бөлешов М.Ә. Медициналық статистика: оқулық.-Эверо, 2015 5. Койчубеков Б.К. Биостатистика: учебное пособие.-Эверо, 2014 6. Койчубеков Б.К. Биостатистикаға кіріспе курсы: оқу құралы.-Эверо, 2014 7. Раманқұлова А.А. Биостатистика.-Ақ-Нұр, 2013 Supplementary

АКАDEMIASY «Онтустік Казакстан медицина академиясы» АК



SOUTH KAZAKHSTAN MEDICAL ACADEMY

АО «Южно-Казахстанская медицинская академия»

Departments: "Medical Biophysics and Information Technologies",	№ 35-11 (Б)-2024
"Social health insurance and public health"	№ 58 - 12 - 2024
Syllabus of the subject "Introduction to Scientific Research"	23 page out of 28

1. Rosner Bernard Fundamentals of Biostatistics: Texbook/ B.Rosner. - 8 nd ed. - [s.l.]:GENGAGE learning, 2016 2. Мысалдар мен тапсырмалардағы биостатистика: оқу-әдістемелік құрал.- Алматы: Эверо, 2013.- 108 бет.

Койчубеков Б.К. Букеева А.С., Такуадина А.И., Жунусова Г.Т., Абдыкешова Д.Т. Мысалдар мен

тапсырмалардағы биостатистика: оқу әдістемелік құрал.- Алматы: ТОО Эверо, 2024.- 108 б.

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Public health

Main

1. Общественное здравоохранение: учебник / А.А. Аканов [и др.]. - Одобрено и рек. комитетом по контролю в сфере образования и науки. Мин-ва образования и науки РК. - М.: "Литтерра", 2020. - 496 с

2. Rosner. Bernard Fundamentals of Biostatistics: texbook / B. Rosner. - 8 nd ed. [S. 1.]: GENGAGE learning, 2016.

3. Бөлешов М.Ә. Қоғамдық денсаулық және денсаулықты сақтау: оқулық / М.Ә. Бөлешов. - Алматы: Эверо, 2015 4. Кэмпбелл А. Медициналық этика: оқу құралы: ағылшын тілінен ауд./ А. Кэмпбелл, Г. Джиллет, Г. Джонс;

ред. Ю. М. Лопухин. - М.: ГЭОТАР - Медиа, 2019. - 368 бет.

5. Биоэтика: учебное пособие / В. В. Сергеев [и др.]; Рек. учебно-методическим объединением по мед. и фарм. образованию вузов. - М.: ГЭОТАР - Медиа, 2013. - 240 с.

Additional

1. Рыманов Д.М. Денсаулық сақтауды басқару этикасы: оқу-әдістемелік кешен = Этика управления в здравоохранении: учебно-методический комплекс / - Алматы: Эверо, 2018. - 164 бет.

2. Койков В.В. Надлежащая практика научных исследований: Избранные вопросы методологии биомедицинских исследований и исследований в медицинском образовании [Текст]: исследование / В. В. Койков, Г. А. Дербисалина.- Караганда: АҚНҰР, 2014. - 140 с.

3. Спандияров Е. Основы научных исследований и инновации [Текст]: практическое пособие / Е. Спандияров; М-во образования и науки РК. - Алматы: Эверо, 2013. - 136 с.

12. Subject policy

Requirements for studying this course:

1. Do not miss classes without reason;

2. Do not be late for classes;

3. Come to classes in uniform;

- 4. To be active during the practical classes;
- 5. To prepare for lessons;
- 6. Take the students independent work and prepare it timely;
- 7. Not to do other things during lessons;
- 8. To be tolerant, polite and friendly to students and teachers;
- 9. Be careful to the department equipment and furniture.

10. Midterm control of students' knowledge in the "Biostatistics" section is carried out on the 7th day of theoretical training. The results of the midterm control being displayed in an electronic journal (Platonus), taking into account penalty points for skipping lectures (missing lectures in the form of penalty points are subtracted from the midterm control assessment). The penalty point for missing 1 lecture is 1.0 point. A student who does not appear for a midterm control without a serious reason is not allowed to take the exam in the subject. The results of the midterm control are provided to the dean's office in the form of a report.

Routine control of knowledge of students in the section "Public Health" is held on the 15th day of theoretical training with putting the results of the boundary control in the electronic journal, taking into account penalty points for missed lectures (missed lectures in the form of penalty points are deducted from the evaluation of the boundary control). The penalty point for missing 1 lecture is 2.0 points. The student who did not appear at the end-of-term control without a valid reason is not allowed to take the examination in the discipline. The results of the end-of-term control are submitted to the dean's office in the form of a report.

11. SIW marks are given at the SIWT lessons, according to the timetable, in the electronic journal (Platonus), taking into account the penalty points for missing SIWT lessons. The penalty point for missing 1 SIWT lesson is 2.0 points.

13. Academic policy based on the moral and ethical values of the academy

1. Mission

академияху Асадему АО «Октустік Қазақстан медицина академиясы» АҚ АСадему АО «Южно-Казахстанская медицинская академия» Departments: "Medical Biophysics and Information Technologies", "Social health insurance and public health" № 35-11 (Б)-2024 Syllabus of the subject "Introduction to Scientific Research" № 58 - 12 - 2024 To be a recognized leader in the field of training competitive personnel! The Student's Code of Honor: 1. The student strives to become a worthy citizen of the Republic of Kazakhsta					
"Social health insurance and public health" № 58 - 12 - 2024 Syllabus of the subject "Introduction to Scientific Research" 24 page out of 28 To be a recognized leader in the field of training competitive personnel! The Student's Code of Honor: 1. The student strives to become a worthy citizen of the Republic of Kazakhsta					
Syllabus of the subject "Introduction to Scientific Research" 24 page out of 28 To be a recognized leader in the field of training competitive personnel! The Student's Code of Honor: 1. The student strives to become a worthy citizen of the Republic of Kazakhsta					
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The Student's Code of Honor: 1. The student strives to become a worthy citizen of the Republic of Kazakhsta					
The Student's Code of Honor: 1. The student strives to become a worthy citizen of the Republic of Kazakhsta					
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					
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 universit					
protects its property, monitors cleanliness and order in the student dormitory. 6. The student recognizes t					
necessary and useful activities aimed at the development of creative activity (scientific, educational, spor					
artistic, etc.), at improving the corporate culture and image of the university. 7. Outside the walls, the stude					
always remembers that he is a representative of a higher school and makes every effort not to drop his honor a					
dignity. 8. The student considers it his duty to combat all types of academic dishonesty, including: cheating a					
asking others for help in passing knowledge control procedures; presenting any volume of ready-ma					
educational materials (abstracts, term papers, tests, theses and other works), including online resources, as t					
results of his own work; circumvention Anti-plagiarism systems; the use of family or official ties to obtain					
higher grade; absenteeism, tardiness and skipping classes without a valid reason. Registrar's Office AP 044/10					
2022 Ed. No.4 14 p. of 67 Academic policy of SC "SKMA" 9. The student considers all the listed types					
academic dishonesty as incompatible with obtaining a high-quality and competitive education worthy of t					
future economic, political and managerial elite of Kazakhstan					
Vision Effective system of modical and pharmacautical education, based on the competence enpressed and the peeds of					
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 SKMA relies for the realization of its mission:					
The principle of high professionalism the teaching staff of SKMA – this is permanent improvement of the					
knowledge and skills, ensuring the provision of quality educational services for students at all levels of trainin					
The principle of quality in SKMA – this is the realization of conception of modernization of Kazakhst					
education, the main direction of which is to ensure the modern quality of education based on the preservation					
its fundamental and compliance with the actual and prospective needs of the individual, society and state, whi					
is ensured by the use in the educational process, scientific-research activities and consultative and diagnos					
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 curre					
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.					
 Academic policy <u>http://surl.li/eroik</u> 					
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 <i>final control mark</i> (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) a					
midterm control mark (MCM).					
The current control mark (CCM) is the average score for practical lessons and SIW.					
The <i>midterm control mark</i> (MCM) is the average score of the two midterm controls.					
The <i>admission rating mark</i> (60 points) is calculated via the formula: MCM = -0.2 + CCM					
$MCM_{average} \ge 0.2 + CCM_{average} \ge 0.4$					
<i>Final control</i> (FC) is carried out in the form of testing and the student can get 40 points or 40% of the total man 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,					
will be 90%.					
$90 \ge 0.4 = 36$ points.					

онт «Оңтүстік Қазақстан медицина ғ	ÚSTIK-QAZAQSTAN MEDISINA AKADEMIASY академиясы» АҚ	SOUTH КАZАКНАТАН SKMA 	демия»
Departments: "Me	35-11 (Б)-2024		
		58 - 12 - 2024	
Syllabus	of the subject "Int	roduction to Scientific Research" 25	page out of 28
30% or more, and in the fina The fina A student who has receive allowed to the exam. Penalty points are subtract	inal control (FC) al grade (100 poin ed an unsatisfacto	has positive marks both in the admission rating (AR = 20 points or 20% or more. hts) = MCM average x 0.2+CCM average x 0.4+FC x 0.4 ory mark for one of the types of controls (MK1, MK2, age score of the current control.	
14. Approval and revision	D. (IN		
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2002 OŃTÚSTIK-QAZAQSTAN MEDISINA AKADEMIASY медицина академиясы» АҚ SKMA <u>, 11</u>

SOUTH KAZAKHSTAN **MEDICAL**

АСАDEMY АО «Южно-Казахстанская медицинская академия»

«Оңтүстік Қазақстан медицина академиясы» АҚ 🏑 🏹 АО «Южно-Казахстанская медицинск	ая академия»
Departments: "Medical Biophysics and Information Technologies",	№ 35-11 (Б)-2024
"Social health insurance and public health"	№ 58 - 12 - 2024
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The protocol of coordination of the working curriculum of the discipline (Syllabus) with other disciplines for the 2024-2025 academic year.

Coordination Subjects	Suggestions for changes in the proportions of the material, the order of presentation, etc.	Protocol numbers and meeting dates of the coordinating departments
1	2	3
Postrequisites:		
Hygiene and epidemiology	1. The course "Introduction to scientific research", the section "Biostatistics" is devoted to the skills of applying methods of statistical processing of biomedical data and population health indicators to describe and interpret data and work with applied programs, skills of scientific analysis and their practical application. The content and sequence of presentation of the course material "Introduction to scientific research", the section "Biostatistics" is considered appropriate.	Department of Hygiene and Epidemiology Protocol № <u>10</u> dated <u>05/20/24</u> y.
Mandatory Social Health Insurance and Medical Law	2. The course "Introduction to scientific research", the section "Public Health" is devoted to legislative documents regulating the activities of healthcare organizations. Rights and obligations in the field of healthcare. Work in electronic databases of the healthcare system of the Republic of Kazakhstan. The content and sequence of presentation of the course material "Introduction to scientific research", the section "Public health" is considered appropriate.	Department of Social Health Insurance and Public Health Protocol № <u>15</u> dated <u>10/06/24</u> y.

Postrequisites:

Head of the Department of Hygiene and Epidemiology, Candidate of Medical Sciences, Acting Professor

Hent

Utepov P.D.

Head of the Department of Social Health Insurance and Public Health, Associate Professor

Sarsenbayeva G.Zh.

о́́итústik-qazaqstan MEDISINA АКАДЕМІАЅҮ «Оңтүстік Қазақстан медицина академиясы» АҚ	ая академия»
Departments: "Medical Biophysics and Information Technologies",	№ 35-11 (Б)-2024
"Social health insurance and public health"	№ 58 - 12 - 2024
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Departments: "Medical Biophysics and Information Technologies",	№ 35-11 (Б)-2024
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