

SYLLABUS
Spring semester 2024-2025 ac.y
Educational Program
8D10101 Public Health “Research Methods”

ID and name, of course	Independent work of the student (SIW)	Number of credits			General number of credits	Independent work of the student under the guidance of a teacher (SIWT)
		Lectures (L)	Practical classes (PC)	Lab. classes (LC)		
AE	The number of SSW is 4					The number of SIWT is 6.

ACADEMIC INFORMATION ABOUT THE COURSE

Learning Format	Cycle, component	Lecture types	Types of practical classes	Form and platform final control
Offline		no		The oral exam in Univer
Lecturer - (s)	Farida Iskakova			
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Assistant - (s)				
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ACADEMIC COURSE PRESENTATION

Purpose of the course is to form deep knowledge, skills, and competencies in Epidemiology and epidemiologic studies and use them to solve Public Health Issues.	Expected Learning Outcomes (LO)	Indicators of LO achievement (ID)
	1. To demonstrate knowledge of the process of generating scientific theory.	1.1 Describe the major steps in the conceptualization of the stage of health services research. 1.2 Demonstrate how to select and formulate a research problem.
	2. To possess knowledge and skills in selecting research to address population health issues.	2.1 Describe the major characteristics and process of health research. 2.2 Find and interpret health indicator data.
	3. To determine the appropriate epidemiologic designs and types for addressing public health issues.	3.1 Distinguish between observational and experimental study designs. 3.2. Define and describe the types of error, bias, and confounding in research. 3.3 Examine the ethical principles and issues in conducting research
	4. Be able to plan and write a research proposal.	4.1 Write a research proposal, including the problem statement, background, hypotheses, and methods for conducting the proposed research. 4.2 Create a questionnaire to research
	5. Be able to conduct research using the knowledge and skills acquired in this course.	5.1 Search for publications and write a literature review on the problem. 5.3 Conduct research (creation of a questionnaire, collection). 5.4. Create a database and perform statistical processing of the results.

Prerequisites	
Postrequisites	

Learning Resources	Literature: main, additional. Gordis, Leon, Epidemiology, 5th Edition, W.B. Saunders Company, 2013. 2. High-Yield Biostatistics, Epidemiology, & Public Health, 4th Edition, Kaplan USMLE, Lecture Notes, Behavioral Sciences and Social Science, 2017.-229p. 3. Fundamentals of Biostatistics. Seventh Edition. Rosner. - 2016.-856 p. 4. HEALTH RESEARCH METHODOLOGY. A Guide for Training in Research Methods. Second Edition. WORLD HEALTH ORGANIZATION.Manila, 2010. Regional Office for the Western Pacific 5. Medical Statistics at a Glance Workbook. Front Cover. Aviva Petrie, Caroline Sabin. John Wiley & Sons, 2013 - Medical - 120 p. 6. Evidence-Based Medicine. How to Practice and Teach EBM (3rd Edition). S.E. Straus, W.S. Richardson, Paul Glasziou, R. Brian Haynes. 7. Literature Reviews in Social Work. Robin Kiteley and Christine Stogdon - 2014.-20 p. Additional literature. 8. Evidence-Based Answers to Clinical Questions for Busy Clinicians Workbook - 2009.- 26p. 9. Appraisal of Guidelines for Research & Evaluation II. The AGREE Next Steps Consortium May 2009.- 52 p. 10. Research Infrastructure Computer class. Professional, scientific databases 1. Microsoft Excell Manual// chrome-extension://adminfinance.umw.edu/tess/files/2013/06/Excel-Manual1.pdf 2. SPSS Survival Manual 6th edition. Julie Pallant – 2016 Internet resources Kaznu Library 2. MOOC / video lectures, etc. 3.www.who.org 4.www.cdc.gov 5. https://pubmed.ncbi.nlm.nih.gov/ Software (optionally) IBM SPSS – 26 version Excel program
Academic course policy	The academic policy of the course is determined by Documents available on the main page of IS Univer. Integration of science and education. The research work of students, undergraduates, and doctoral students is a deepening of the educational process. It is organized directly at the university's departments, laboratories, scientific and design departments, in student scientific and technical associations. Independent work of students at all levels of education is aimed at developing research skills and competencies based on obtaining new knowledge using modern research and information technologies. A research university teacher integrates the results of scientific activities into the topics of lectures and seminars (practical) classes, laboratory classes, and the tasks of the SSWT and SSW, which are reflected in the syllabus and are responsible for the relevance of the topics of training sessions and assignments. Attendance. The deadline for each task is indicated in the calendar (schedule) for the implementation of the content of the course—failure to meet deadlines results in loss of points. Academic honesty. Practical/laboratory classes, SSW, develop the student's independence, critical thinking, and creativity. Plagiarism, forgery, cheat sheets, and cheating at all stages of completing tasks are unacceptable. Compliance with academic honesty during the period of theoretical training and at exams, in addition to the main policies, is regulated by "<u>Regulations on checking students' text documents for borrowings</u>". Documents are available on the main page of IS Univer. Basic principles of inclusive education. The university's educational environment is conceived as a safe place where there is always support and equal attitude from the teacher to all students and students to each other, regardless of gender, race/ethnicity, religious beliefs, socio-economic status, physical health of the student, etc. All people need the support and friendship of peers and fellow students. For all students, progress is more about what they can do than what they can't. Diversity enhances all aspects of life. All students, especially those with disabilities, can receive counseling assistance by phone at +7701101308/or e- mail iskakova.farida@kaznu.kz _or whats up via video link in MS Teams <u>enter a permanent link to the meeting.</u>
	Integration MOOC (massive open online course). In the case of integrating MOOC into the course, all students need to register for MOOC. The deadlines for passing MOOC modules must be strictly observed in accordance with the course study schedule. ATTENTION! The deadline for each task is indicated in the calendar (schedule) for the implementation of the content of the course, as well as in the MOOC. Failure to meet deadlines results in loss of points.

INFORMATION ABOUT TEACHING, LEARNING AND ASSESSMENT

Score-rating letter system of assessment of accounting for educational achievements	Assessment Methods
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Grade	Digital equivalent points	points, % content	Assessment according to the traditional system	Criteria-based assessment is the process of correlating actual learning outcomes with expected learning outcomes based on clearly defined criteria. Based on formative and summative assessment.	
A	4.0 _	95-100	Great	Formative assessment is a type of assessment that is carried out in the course of daily learning activities. It is the current measure of progress. Provides an operational relationship between the student and the teacher. It allows you to determine the capabilities of the student, identify difficulties, help achieve the best results, timely correct the educational process for the teacher. The performance of tasks, the activity of work in the classroom during lectures, seminars, practical exercises (discussions, quizzes, debates, round tables, laboratory work, etc.) are evaluated. Acquired knowledge and competencies are assessed.	
A-	3.67	90-94			
B+	3.33	85-89	Fine	Summative assessment - type of assessment, which is carried out upon completion of the study of the section in accordance with the program of the course. Conducted 3-4 times per semester when performing SIW . This is the assessment of mastering the expected learning outcomes in relation to the descriptors. Allows you to determine and fix the level of mastering the course for a certain period. Learning outcomes are evaluated.	
B	3.0	80-84			
B-	2.67	75-79			
C+	2.33	70-74			
C	2.0	65-69			
C-	1.67	60-64	Satisfactorily	Formative and summative assessment	
D+	1.33	55-59		1. Activity in discussions of topic in classes	
D	1.0	50-54	Unsatisfactory	2. Work in practical classes	
				3. Independent work	
				4. Design and creative activity	
				5. Final control (exam)	
				Activity in discussions of topic in classes	
				Work in practical classes	
				Independent work	
				Design and creative activity	
				Final control (exam)	
				TOTAL	

Calendar (schedule) for the implementation of the content of the course. Methods of teaching and learning.

A week	Topic name	Number of hours	Max. ball
MODULE 1 PUBLIC HEALTH RESEARCH BASUCS			
	L.1 Conceptualization of Health Services Research		
	S 1. Research Review and Research Question Development		7
	L.2 Research Strategies and Design. Sampling methods and sampling size		
	S 2. Research Strategies and Design. Sampling methods and sampling size		7
	SIWT 1. Consultation on the implementation of SIW, 1-5 topics.		
	L.3. Descriptive epidemiological studies		
	S 3. Descriptive epidemiological studies		7
	SIW 1. Critical Analysis of One Descriptive Epidemiological Study.		25
	L.4 Analytical epidemiological studies		
	S 4. Analytical epidemiological studies		7
	L.5 Experimental studies and Clinical Trials		
	S 5. Experimental studies (Clinical Trials)		7
MODULE 2 QUALITATIVE RESEARCH STUDIES			
	L.6. Diagnostic and Screening Tests.		
	S.6. Diagnostic and Screening Tests.		7
	SIWT 2. Consultations on the implementation of SIW 2		
	L.7. Bias and confounding		
	S.7. Bias and confounding		8
	SIW 2. Write an essay on Clinical Trials.		25
Midterm control 1 (tests)			100
	L.8 Basic risk measurement		
	S 8. Basic risk measurement.		7
	SIWT 3. Consultations on the implementation of SIW 3		
	L.9. Qualitative Studies Design		
	S. 9. Qualitative Studies Design, Data collection and Analysis.		7
	SIW3. Critical analysis of one Qualitative Research.		22
	L.10. Mixed Methods Research: Quantitative and Qualitative Results in Health Science		
	S. 10. Mixed Methods Research: Quantitative and Qualitative Results in Health		7

	Science		
	SIWT 4. Consultation on the implementation of SIW 4		
MODULE 3 CONSTRUCTION RESEARCH PROPOSAL			
	L.11 Construction of Research Proposal		
	S.11 Construction of Research Proposal		7
	SIWT 5. Consultation on the implementation of SIW 4		
	L.12 Survey Research		
	S. 12 Survey Research		7
	L.13 Statistical Analysis		
	S. 13. Statistical Analysis		7
	SIWT4. Write Research Proposal on a Scientific Research		22
	L.14 Secondary Analysis		
	S. 14. Secondary Analysis		7
	L.15 Summarizing and Visualizing Data.		
	S. 15. Summarizing and Visualizing Data		7
	SIWT 6. Consultation on final exam		
Midterm control 2 (tests)			100
Final control (exam)			100
TOTAL for course			100

Dean _____ **Kalmahanov S.B.**

Chairman of the Academic Committee
on the quality of teaching and learning _____ **G.M.Kurmanova**

Head of Department _____ **G.Zh.Kapanova**

Lecturer _____ **Iskakova F.A.**