SYLLABUS
Spring semester 2025-2026 ac.y
Educational Program for specialty Public Health
8D10101 Public Health course of Advanced Epidemiology"

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		IC Univer written exam	
Lecturer - (s)	Farida Iskakova				
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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. Demonstrate knowledge of Epidemiology and epidemiologic studies.	1.1 Know the base principles, types, and methods of epidemiology. 1.2 Knows epidemiologic studies.
	2. Possess knowledge and skills to solve Population Health.	2.1 Describe and provide examples of measures of morbidity and mortality used in epidemiology. 2.2 Interpret and calculate basic epidemiological measures used to describe the health of a population, including measures of morbidity and mortality. 2.3 Find and interpret health indicator data.
	3. 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 different types of errors, biases, and confounding that may exist in an epidemiological study.
	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. 4.3 Downloads and studies IBM SPSS program
	5. 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. Creates a database and performs statistical processing of the results. 5.5 Draw up the results of the study (thesis).

Prerequisites	[96261]
Postrequisites	[104421]

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. Fundamentals of Biostatistics. Seventh Edition. Rosner. - 2016.-856 p. Primer of Biostatistics. Seventh Edition. Stanton A. Glantz, Ph.-2009.-297p. 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 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 "Regulations on checking students' text documents for borrowings". 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 *enter a permanent link to the meeting.*

	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**

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.

Grade	Digital equivalent points	points, % content	Assessment according to the traditional system	Formative and summative assessment	Points % content
B	3.0	80-84		1. Activity in discussions of topic in classes 2. Work in practical classes 3. Independent work 4. Design and creative activity 5. Final control (exam)	1. 10 2. 10 3. 10 4. 30 5. 40
B-	2.67	75-79		Activity in discussions of topic in classes	10
C+	2.33	70-74		Work in practical classes	10
C	2.0	65-69	Satisfactorily	Independent work	10
C-	1.67	60-64		Design and creative activity	30
D+	1.33	55-59	Unsatisfactory	Final control (exam)	40
D	1.0	50-54		TOTAL	100

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 Concepts and Methodological Approaches in Epidemiology		
1	L. 1 Concepts and modern tendencies in Epidemiology. Measures of disease occurrence	1	
	S 1. Concepts and modern trends in Epidemiology. Measures of disease occurrence	2	0
2	L.2 Rates, Risks, Measures of Associations and Impact.	1	
	S 2. Rates, Risks, Measures of Associations and Impact	2	0
	ISWT 1. Consultations on the implementation of SIW 1		
3	L.3 Design of Epidemiological Studies: Descriptive studies.	1	
	S 3. Design of Epidemiological Studies: Descriptive studies	2	0
4	L 4. Design of Epidemiological Studies: Analytic Cohort Studies.	1	
	S 4. Design of Epidemiological Studies: Analytical Studies. Measure of Exposure.	2	0
	ISWT 2. Consultations on the implementation of SIW 1		
5	L.8 Experimental studies: RCT, non-RCT.	1	
	S 5. Experimental studies: RCT, non-RCT. Measure of outcome.	2	12
	ISW 1 completion on topics of 1-5 classes.		25
6	L.6. Diagnostic and Screening tests.	1	
	S.6. Diagnostic and Screening tests.	2	13
	ISWT 3. Consultations on the implementation of SIW 2		
7	L.7 Population Health.	1	
	S.7 Population Health	2	12
	ISWT 4. Consultations on the implementation of ISW 2		
8	L.8 Bias and Confounding in studies.	1	
	S 8. Bias and Confounding in studies.	2	13
	ISW2. completion on topics of 6 -8 classes.		25
	Midterm control 1 (tests)		100
	MODULE 2. PLANNING OF EPIDEMIOLOGIC STUDIES AND STATISTICAL METHODS		
9	L.9 Planning of Epidemiologic Studies.	1	
	S. 9. Planning of Epidemiologic Studies.	2	
	ISWT 5. Consultation on the implementation of ISW 3		7
10	L.10 Statistical Methods in Epidemiology	1	
	S. 10. Statistical Methods in Epidemiology. Mixed --effects.	2	6
	SIWT 4. Consultation on the implementation of SIW 4		
11	L.11 Field Epidemiology.	1	
	S.11 Outbreak Investigation.	2	**7**
	ISW3. completion on topics of 9 -11 classes.		**25**
	MODULE 3. TYPES OF EPIDEMIOLOGY		

12	L.12 Epidemiology of Infectious Diseases.	1	
	S. 12. Infectious Disease Epidemiology.	2	**7**
13	L.13. Zoonotic Diseases Epidemiology.	1	
	S. 13. Zoonotic Diseases Epidemiology.	2	**7**
	ISWT 6. Consultation on ISW4		
14	L.14 Exposure-Oriented Epidemiology. Infectious Diseases	1	
	S.14. Exposure-Oriented Epidemiology. Infectious Diseases	2	**7**
15	L.15. Outcome-Oriented Epidemiology: Non-Communicable Diseases	1	
	S. 15. Outcome-Oriented Epidemiology: Non-Communicable Diseases	2	**8**
	ISW 4 on topic of 12-15 classes.		**25**
Midterm control 2 (tests)			**100**
Final control (exam)			**100**
TOTAL for course			**100**

Field Epidemiology
Exposure Assessment
Population Health
Outbreak Investigation

Dean of Faculty _____**Kalmahanov S.B.**

Chairman of the Academic Committee

on the quality of teaching and learning_____**Kurmanova G.M.**

Head of Department _____**Ualiyeva A,E,**

Lecturer _____**Iskakova F.A.**