SYLLABUS
Fall semester 2025-2026 academic year
Educational program 6B10113 Dentistry "Patient and society"

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

ACADEMIC INFORMATION ABOUT THE COURSE				
Learning Format	**Cycle, component**	**Lecture types**	**Types of practical classes**	**Form and platform final control**
Choose Online		no		The written task in Moodle
Lecturer - (s)	Farida Iskakova			
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ACADEMIC COURSE PRESENTATION		
Purpose of the course is to form knowledge of the basics of epidemiology, evidence-based medicine, and biostatistics, skills, and abilities to plan and conduct scientific research on public health	**Expected Learning Outcomes (LO)***	**Indicators of LO achievement (ID)**
	1. Demonstrate knowledge of epidemiology, biostatistics, and evidence-based medicine.	1.1 Knows base principles, types, and methods of epidemiology.
		1.2 Knows statistical methods.
	2. Possess knowledge of the basics of Evidence-Based Medicine for critically evaluating scientific and medical information.	2.1 Formulates a research question using the PICO, PICOT structure.
		2.2 Show the skills to search for scientific publications in the evidence-based PubMed/Medline, Cochrane Library, Embase, etc. 2.3 Explain the ethical issues surrounding social science and medical research with human participants.
	3. Determine appropriate research design and methods given specific research objectives.	3.1 Explain and choose different research designs.
		3.2. Can work in the IBM SPSS program
		3.3 Can measures of Disease Occurrence using Descriptive and Inferential Statistics.
	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 Creates a questionnaire. 4.3 Downloads and studies the IBM SPSS program
	5. Conducts research using the knowledge and skills acquired in this course.	5.1 Searches for publications and writes a literature review on the problem. 5.3 Conducts research (creation of a questionnaire, collection). 5.4. Creates a database and performs statistical processing of the results. 5.5 Draws up the results of the study (thesis).

Prerequisites	
Post requisites	
Learning Resources	**Literature:** main, additional. 1. 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. Primer of Biostatistics. Seventh Edition. Stanton A. Glantz, Ph.D., 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 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. **Research infrastructure** 1. 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** 1. KazNU Library 2. MOOC / video lectures, etc. 3.www.who.org 4.www.cdc.gov 5. https://pubmed.ncbi.nlm.nih.gov/ **Software** (optionally) 1. IBM SPSS – 26 version 2. Excel program

Academic course policy	The academic policy of the course is determined by Documents are 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

Grade	Digital equivalent points	points, % content	Assessment according to the traditional system
A	4.0 _	95-100	Great
A-	3.67	90-94	
B+	3.33	85-89	Fine
B	3.0	80-84	
B-	2.67	75-79	
C+	2.33	70-74	
C	2.0	65-69	Satisfactorily
C-	1.67	60-64	
D+	1.33	55-59	Unsatisfactory
D	1.0	50-54	

Assessment Methods

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.
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.
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 IWS. 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.

Formative and summative assessment	**Points % content**
1.Activity in discussions of topic in classes	**1. 10**
2.Work in practical classes	**2. 10**
3.Independent work	**3. 10**
4.Design and creative activity	**4. 30**
5.Final control (exam)	**5. 40**
Activity in discussions of topic in classes	10
Work in practical classes	10
Independent work	10
Design and creative activity	30
Final control (exam)	40
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 INTRODUCTION TO EPIDEMIOLOGY AND EVIDENCE-BASED MEDICINE		
	PC 1. Introduction to Epidemiology.		6
	PC 2. Epidemiological Study Design.		6
	IWST 1. Control work, test, individual/group project, essay, situational task, testing, portfolio, etc., at the teacher's choice. An estimated 25-30 % of the total points for foreign control. Consultations on the implementation of **IWS 1**		
	PC 3. Epidemiology of communicable and non-communicable diseases.		6
	IWS 1. Choose one health problem and describe it using epidemiological questions: What? Where? When? Who? Why? and How?		25
	PC 4. 5 stages of Evidence-Based Medicine. Search and critical analysis of published research.		6
	PC 5. Systematic review and meta-analysis. Evaluation of clinical protocols and recommendations. GRADE.		6
	MODULE 2 INTRODUCTION TO BIOSTATISTICS		
	PC.6. Research proposal. Create and share the questionnaire.		
	IWST 2. Colloquium (situational task). Consultations on the implementation of		
	IWS 2		
	PC 7. Measurement in Epidemiology. Frequencies, rates, ratio.		7
	IWS 2. Organization of scientific research		25
	PC 8. Summarizing data: Properties and methods of Frequency Distributions. Measures of Central Location and Spread.		**7**
	IWST 3. Consultations on the implementation of IWS 3		
Midterm control 1 (tests)			**100**
	PC 8. Summarizing data: Properties and methods of Frequency Distributions. Measures of Central Location and spread.		**7**
	IWST 3. Consultations on the implementation of **IWS 3**		

	PC 9. Types of statistical hypotheses. Hypothesis testing. P-value. Standard error and confidence interval.		**77**
	IWS3. Create of database in Excel and SPSS**.**		**25**
	PC 10. Biostatistics: Descriptive statistics. Databases (Excel, SPSS).		**7**
	IWST 4. Consultation on the implementation **of IWS 4**		
MODULE 3 CONSTRUCTION OF A RESEARCH PROPOSAL			
	PC 11. Introduction to analytical statistics. Methods for the analysis of qualitative variables, independent and related samples (Chi-square test. Fisher's exact test, McNemar's test).		**7**
	IWST 5. Consultation on the implementation **of IWS 4**		
	PC 12. Parametric Tests (T-tests, ANOVA).		**7**
	With RO 3.		
	PC 13. Non-parametric Tests (Mann-Whitney U-test, Wilcoxon U-test, Kruskal-Wallis Test, Friedman Test.		**7**
	IWS4. Overview of research results		**25**
	PC 14. Correlation (Pearson and Spearman) and regression. Survival analysis Log-rank test.		**7**
	PC 15. Presentation of scientific projects.		**8**
	IWST 6. Consultation on final exam		
Midterm control 2 (tests)			**100**
Final control (exam)			**100**
TOTAL for course			**100**

Dean _____Kalmahanov S.B.

Head of Department _____Ualliyeva A.E.

Lecturer _____Iskakova F.A.