

**SYLLABUS**  
**Fall semester 2024-2025 academic year**  
**Educational program "General Epidemiology"**  
**For 6B10105**

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)		
OE2208	4	15	90	-		6.
<b>ACADEMIC INFORMATION ABOUT THE COURSE</b>						
Learning Format	Cycle, component	Lecture types	Types of practical classes		Form and platform final control	
<i>Offline</i>		yes			Case study	
<b>Lecturer - (s)</b>	Farida Iskakova					
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<b>Assistant - (s)</b>						
<b>e-mail :</b>						
<b>Phone :</b>						
<b>ACADEMIC COURSE PRESENTATION</b>						
To form the competencies of bachelor's students in biostatistics as a science of Public Health. To form the competencies of bachelor's students in Epidemiology as a science of Public Health.	1. To demonstrate knowledge and understanding of the principles of Epidemiology as a science in Public Health.				1.1 Explain the principles and core function of Epidemiology in Public Health. 1.2. Use the principles of Epidemiology to assess Population Health.	
	2. To distinguish concepts of causality in epidemiology.				2.1. Define the cause of communicable and non-communicable diseases. 2.2. Give the characteristics of the disease's cause.	
	3. Demonstrate skills to estimate Population Health.				3.1 Summarize Data and measure the frequencies of disease 3.2 Display of Public Health Data in tables and graphs.	
	4. To demonstrate knowledge and skills in understanding the hierarchy and design of epidemiologic studies.				4.1 Critically appraise Observational Descriptive study using scientific original articles (case report, case-series, ecological, cross-sectional studies). 4.2 Critically appraise Observational Analytical studies using scientific original articles (case-control, cohort studies). 4.3 Critically appraise Randomized and non-randomized clinical trials using original scientific papers.	
	5.1 Write an overview of Tuberculosis Surveillance in the county (Afghanistan, Kazakhstan).				5.1 Write an overview of Tuberculosis Surveillance in the county (Afghanistan, Kazakhstan).	
	5.2 Write a plan for investigating of infectious disease outbreak in a city.				5.2 Write a plan for investigating of outbreak in a city.	
<b>Prerequisites</b>						
<b>Postrequisites</b>	Biostatistics					
<b>Learning Resources</b>	Literature: main, additional. 1. Gordis, Leon, Epidemiology, 5th Edition, W.B. Saunders Company, 2013. 2. Principles of Epidemiology in Public Health. CDC.-2014. 3. Essentials of Epidemiology in Public Health. Third Edition.-2016.-526 p. 4. USMLE: Epidemiology. 5. Medical Statistics at a Glance Workbook. Front Cover. Aviva Petrie, Caroline Sabin. John Wiley &					

	<p>Sons, 2013 - Medical - 120 p.</p> <p>Research infrastructure</p> <ol style="list-style-type: none"> <li>1. Microsoft Excell Manual// chrome-extension://adminfinance.umw.edu/tess/files/2013/06/Excell-Manuall.pdf</li> <li>2. SPSS Survival Manual 6th edition. Julie Pallant – 2016</li> </ol> <p>Internet resources</p> <ol style="list-style-type: none"> <li>1. Kaznu Library</li> <li>2. MOOC / video lectures, etc.</li> <li>3. www.who.org</li> <li>4. www.cdc.gov</li> <li>5. <a href="https://pubmed.ncbi.nlm.nih.gov/">https://pubmed.ncbi.nlm.nih.gov/</a></li> </ol> <p>Software (optionally)</p> <ol style="list-style-type: none"> <li>1. IBM SPSS – 26 version</li> <li>2. Excel program</li> </ol>
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<b>Academic course policy</b>	<p><b>Academic values: Integration of science and education.</b> The research work of students, undergraduates, and doctoral students is a deepening of the educational process. It is organized directly at the university's laboratories, scientific and design departments, and 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.</p> <p><b>Attendance.</b> 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.</p> <p><b>Academic honesty.</b> 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.</p> <p>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.</p> <p><b>Basic principles of inclusive education.</b> 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/e-mail <a href="mailto:iskakovaf@gmail.com">iskakovaf@gmail.com</a> or what's up via video link in MS Teams <u>enter a permanent link to the meeting</u>.</p> <p><b>Integration MOOC (massive open online course).</b> 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 by the course study schedule.</p> <p><b>ATTENTION!</b> 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.</p>
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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
A	4.0	95-100	Great
A-	3.67	90-94	
B+	3.33	85-89	Fine

**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, and timely correct the educational process for the teacher. The performance of tasks, and the activity of work in the classroom during lectures, seminars, and practical exercises (discussions, quizzes, debates, round tables, laboratory work, etc.) are evaluated. Acquired knowledge and competencies are assessed.

**Summative assessment** - a type of assessment, which is carried out upon completion of the study of the section by the program of the course. Conducted 3-4 times per semester when performing SIW. This is the assessment of mastering the expected learning outcomes of 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>Formative and summative assessment</b> 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)	<b>Points % content</b> <b>1. 10</b> <b>2. 10</b> <b>3. 10</b> <b>4. 30</b> <b>5. 40</b>
B-	2.67	75-79		Activity in discussions of topics 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
<b>MODULE 1 INTRODUCTION TO EPIDEMIOLOGY</b>			
<b>1</b>	L.1. Principles of Epidemiology as a science.		
	PC 1. Principles and core functions of Epidemiology in Public Health.	6	5
<b>2</b>	L.2. Milestones in the history of Epidemiology		
	PC 2. History of Epidemiology.	6	5
	SIWT 1. Control work, tests, individual/group projects, essays, situational tasks, testing, portfolio, etc. at the teacher's choice. Estimated 25-30 % of the total points for foreign control. Consultations on the implementation of SIW 1. ATTENTION. Number of SIWT (6-7), SIW (2-5 ) for 15 weeks.		
<b>3</b>	L.3. Measures of Disease Frequency.		
	PC 3. Summarizing Data. Measures of Disease Frequency.	6	5
<b>4</b>	SIW 1. Choose one health problem and describe it using epidemiological questions. What? Where? When? Who? Why? and How?	9	17
	L.4. Basics of Public Health.		
<b>5</b>	PC 4. Displaying Public Health Data.	6	5
	L.5. Public Health Surveillance		
<b>6</b>	PC 5. Public Health Surveillance.	6	5
	L.6. Descriptive Epidemiology principles.		
<b>7</b>	PC 6. Descriptive Epidemiology.	6	5
	SIWT 2. Colloquium (situational task). Consultations on the implementation of SIW 2		
	L.7. Basics of Epidemiology of Infectious Diseases		
<b>8</b>	PC 7. Epidemiology of Infectious diseases.	6	5
	SIW 2. Organization of scientific research	10	18
<b>Midterm control 1 (tests)</b>			<b>100</b>
<b>9</b>	L.8. Preventive and prophylaxis methods.		
	PC 8. Preventive Medicine. Vaccination.	6	5
	SIWT 3. Consultations on the implementation of SIW 3		
<b>10</b>	L. 9. Basics of Epidemiology of non-communicable diseases.		
	PC 9. Epidemiology of non-communicable diseases.	6	5
	SIW 3. Create of database in Excel and SPSS.	9	17
<b>11</b>	L.10. Population Health. Diagnostic and Screening Test.		
	PC 10. Population Health. Diagnostic and Screening Test.	6	5
	SIWT 4. Consultation on the implementation of SIW 4		
<b>MODULE 3 EPIDEMIOLOGICAL STUDIES</b>			
<b>12</b>	L.11. Hierarchy and Design of Epidemiological Studies		
	PC 11. Observational descriptive studies.	6	5
	SIWT T 5. Consultation on the implementation of SIW 4		
<b>13</b>	L.12. Observational analytic studies.		
	PC 12. Observational analytic case-control and cohort studies.	6	5
<b>14</b>	L.13. Experimental studies 1.		
	PC 13. Experimental studies: Clinical trial. Randomized controlled trial.	6	5
	SIW 4. Overview of research results	10	18
<b>15</b>	L.14. Experimental studies 2.		
	PC 14. Experimental studies: Clinical trial. Non-randomized trial.	6	5

<b>15</b>	L.15. Overview of epidemiological studies and measure of risk association.		
	PC 15. Overview of topics and preparation for the exam	<b>6</b>	<b>5</b>
	SIWT 6. Consultation on final exam		
<b>Midterm control 2 (tests)</b>			<b>100</b>
<b>Final control (exam)</b>			<b>100</b>
<b>TOTAL for course</b>			<b>100</b>

Dean \_\_\_\_\_ **S.B. Kalmahanov**

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

Head of Department \_\_\_\_\_ **A.E.Ualiyeva**

Lecturer \_\_\_\_\_ **F.A. Iskakova**

## RUBRICATOR OF THE SUMMATIVE ASSESSMENT

### CRITERIA EVALUATION OF LEARNING OUTCOMES

**Task name** (points, % content from 100% MC, copy from the calendar (graphics) implementation of the content of the training course, methods of teaching and learning

Criterion	"Excellent" Max. weight in %	"Good" Max. weight in %	"Satisfactory" Max. weight in %	"Unsatisfactory" Max. weight in %
	95- 100 %	80-94%	64-79%	<63%

Criterion	"Excellent" 20-25%	"Good" 15-20%	"Satisfactory" 10-15%	"Unsatisfactory" 0-10%
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#### THEMATIC PLAN AND CONTENT OF PRACTICAL STUDIES

№	Topic	Content	Resources
	2	3	4
1	Introduction to Epidemiology: Definition. Core	Basic concepts and areas of application. Theories of causality and probability. epidemiological triad. Factors related to the infectious agent, the environment, and the susceptible individual. The concept of the epidemic process and ways of transmission of infection. epidemiological approach. Fundamentals of surveillance. Population, sentinel, and syndromic surveillance. Mini presentation. CBL Case study.	<ol style="list-style-type: none"> <li>1. Gordis, Leon, Epidemiology, 5th Edition, W.B. Saunders Company, 2013, p. 20-54, 55-61, 61-78</li> <li>2. Principles of Epidemiology in Public Health Practice, 3d Edition, CDC, US Department of Public Health, 2012. Lesson 1-4.</li> <li>3. High-Yield Biostatistics, Epidemiology, &amp; Public Health, 4th Edition, p.86-96</li> <li>4. Kaplan USMLE, Lecture Notes, Behavioral Sciences and Social Science, 2017, p.3-10</li> <li>5. An Introduction to Epidemiology. Wolfgang Ahrens, Klaus Krickeberg, Iris Pigeot, p.3-20</li> <li>6. CDC-materials <a href="https://www.cdc.gov/csels/dsepd/ss1978/lesson5/section2.html">https://www.cdc.gov/csels/dsepd/ss1978/lesson5/section2.html</a></li> </ol>
2	Epidemiological Study Design.	Epidemiological methods: descriptive, analytical, and experimental. Case reports (clinical cases), case series (series of cases); ecological, cross-sectional studies, case-control, cohort study. Randomized and non-randomized clinical trials. Measures, bias, and confounders. Advantages and limitations of epidemiological methods. Diagnostic and screening tests.	<ol style="list-style-type: none"> <li>1. Kaplan USMLE, Lecture Notes, Behavioral Sciences and Social Science, 2017, p.11-14, 17-24</li> <li>2. Gordis, Leon, Epidemiology, 5th Edition, W.B. Saunders Company, 2013, p.197-232, p.158-194, p.235-247, p.250-280, p.282-296, 346-367</li> <li>3. An Introduction to Epidemiology. Wolfgang Ahrens, Klaus Krickeberg, Iris Pigeot, p. 29-35</li> </ol>

		sensitivity and specificity. Likelihood ratio. Predictive value (negative and positive). The use of epidemiological methods in clinical medicine. Glossary. Mini presentation. CBL - Case study.	4. High-Yield Biostatistics, Epidemiology, & Public Health, 4th Edition, p.57-71, 82-92 5. Wolfgang, A. Handbook of Epidemiology. 5 vol.//Ahrens Wolfgang, Peugeot Iris. - 2 ed.- Springer Reference, 2014, p.187-388
3	Epidemiology of communicable and	Epidemiology of infectious diseases. Occurrence, mechanism, and ways of transmission of infectious diseases. Epidemiological classification of infectious diseases. Standard case definition: presumptive, probable, and confirmed cases. Outbreak investigation. Stages of investigation. Anti-epidemic and preventive measures in the focus of infection. Glossary. Epidemiology of chronic non-communicable diseases: cardiovascular, oncological diseases, COPD, diabetes. Causes and conditions for the occurrence and spread of HND. Measurement of risks, prevalence rates, outcomes and treatment effectiveness. Epidemiology of dental diseases. Glossary. Mini presentation. CBL. case study.	1. High-Yield Biostatistics, Epidemiology, & Public Health, 4th Edition, p.96-100 2. Gordis, Leon, Epidemiology, 5th Edition, W.B. Saunders Company, 2013, p. 54-56, p.328-335 3. Wolfgang, A. Handbook of Epidemiology. 5 vol.//Ahrens Wolfgang, Peugeot Iris. - 2 ed.- Springer Reference, 2014, v.5 4. Cancer Epidemiology: Principles and Methods. Isabel dos Santos Silva. WHO. -1999.-437 p. 5.Communicable disease control in emergencies. A field manual. Edited by M.A. Connolly.2005.-194 p.
4	5 stages of Evidence-Based Medicine. Search and critical analysis of published research.	Principles of Evidence-Based Medicine. The history of the development of Evidence-Based Medicine. World development experience. The value of Evidence-Based Medicine for clinical practice. 5 stages of evidence-based medicine. Formulation and transformation of a clinical problem into a question using the PICOT principle. Finding and identifying the best evidence to answer. Evaluation of the quality and reliability of evidence. Implementation of the results of a critical assessment in clinical practice and evaluation of the results of the work done (audit). Glossary. Select appropriate resources and search for evidence. Medline/PubMed, Cochrane Collaboration Data Base, Cochrane Library, EMBASE. Search strategy: keywords, logical operators (Boolean Operators), phrases (Phrase Search), by author (Author Search), by journal title (Journal Search), subject headings (MeSH) Operations with search results. Mini presentation. CBL Case study.	1. Fundamentals of Evidence-Based Medicine, K Prasad, 2013, 1-7 p, Chapter 2, 19-25 p 2. Essential Evidence-based medicine, D, Mayer, 2010, 9-18 p 3. Evidence-Based Answers to Clinical Questions for Busy Clinicians Workbook- 2009.-26p. 4. Essentials of Evidence-based Clinical Practice. Second Edition. -2008.- 349 p. 5. Medline/PubMed, Cochrane Collaboration Data Base, Cochrane Library, EMBASE

5	Systematic review and meta-analysis. Evaluation of clinical protocols and recommendations. GRADE.	Studies summarizing other studies: a systematic review and meta-analysis. Stages of creating a systematic review. Stages of meta-analysis. Options for presenting meta-analysis results in a systematic review. Search strategy for systematic reviews. Assessing the quality of systematic reviews using the AGREE system. Evaluation of clinical guidelines. Recommendation classes: I, II, II-a, II-b, III. Glossary. Mini presentation. CBL - case studies.	1. Literature Reviews in Social Work. Robin Kiteley and Christine Stogdon.- 2014.-20 p. 2. APPRAISAL OF GUIDELINES FOR RESEARCH & EVALUATION II. The AGREE Next Steps Consortium. - May 2009.-52 p.
6	Research proposal. Create and share questionnaire.	Conceptualization stage of health services research. Select and formulate a research problem. Theories and appropriate theoretical frameworks in health research. Types of research reviews (e.g., information synthesis, literature reviews, and meta-analysis) and their purposes. General categories in research review.	1. Fundamentals of Evidence-Based Medicine, K Prasad, 2013, 27-31 p, 109-112 p 2. Essential Evidence-based medicine, D, Mayer, 2010, 367-377 p 3. Evidence-based medicine, Dermot P.B.McGovern et all, 2005, 62-76 p 4. How to read a paper. T. Greenhalgh. -2003.-240 p. 5. Evidence-Based Answers to Clinical Questions for Busy Clinicians Workbook. - 2009.-26p.
7	Measurement in Epidemiology. Frequencies, rates, ratio.	Counts, frequencies, rates and ratio. Measuring disease incidence, prevalence and mortality rates. Calculation and interpretation of indicators of morbidity, prevalence, mortality of the population. Visual presentation of epidemiological data. Registration of cases. Data collection system. Analysis, interpretation, and presentation of surveillance data. Glossary. Mini presentation. CBL Case study.	1. Epi Info. -176 p. 2. Gordis, Leon, Epidemiology, 5th Edition, W.B. Saunders Company, 2013, p.55-61, p.371-376 3. Principles of Epidemiology in Public Health Practice, 3d Edition, CDC, US Department of Public Health, 2012. Lesson 5. 4. CAPABILITY 13: Public Health Surveillance and Epidemiological Investigation. Public Health Preparedness Capabilities:
8	Summarizing data: Properties and methods of Frequency Distributions. Measures of Central Location and spread.	Data, database. Mean, median and mode. Central location, types. Types of variables. Types of distribution, descriptive statistics. Databases (Excel, SPSS).	1. Fundamentals of Biostatistics. Seventh Edition. Rosner. - 2016.-856 p. 2. Primer of Biostatistics. Seventh Edition. Stanton A. Glantz, Ph.-2009.-297p. 3. Medical Statistics at a Glance Workbook. Front Cover. Aviva Petrie, Caroline Sabin. John Wiley & Sons, 2013 - Medical - 120 p. 4. SPSS Survival Manual 6th edition. Julie Pallant - 2016
9	Types of statistical hypotheses. Hypothesis testing. P-value. Standard error and confidence interval.	Types of statistical hypotheses. Hypothesis testing. P-value. Standard error and confidence interval.	1. Fundamentals of Biostatistics. Seventh Edition. Rosner. - 2016.-856 p. 2. Primer of Biostatistics. Seventh Edition. Stanton A. Glantz, Ph.-2009.-297p. 3. Medical Statistics at a Glance Workbook. Front Cover. Aviva Petrie, Caroline Sabin. John Wiley & Sons, 2013 - Medical - 120 p. 4. SPSS Survival Manual 6th edition. Julie Pallant - 2016

10	Biostatistics: Descriptive statistics. Databases (Excel, SPSS).		
11	Introduction to analytical statistics. Methods for analyzing qualitative variables, independent and related samples (Chi-square test. Fisher's exact test, McNemar's test).	Methods for the analysis of qualitative variables, independent and related samples (Chi-square test. Fisher's exact test, McNemar's test).	<ol style="list-style-type: none"> <li>1. Fundamentals of Biostatistics. Seventh Edition. Rosner. - 2016.-856 p.</li> <li>2. Primer of Biostatistics. Seventh Edition. Stanton A. Glantz, Ph.-2009.-297p.</li> <li>3. Medical Statistics at a Glance Workbook. Front Cover. Aviva Petrie, Caroline Sabin. John Wiley &amp; Sons, 2013 - Medical - 120 p.</li> <li>4. SPSS Survival Manual 6th edition. Julie Pallant - 2016</li> </ol>
12	Parametric Tests (T-tests, ANOVA).	One-sample t-test, Two-sample t-test and Paired t-test., One-way ANOVA.	<ol style="list-style-type: none"> <li>1. Fundamentals of Biostatistics. Seventh Edition. Rosner. - 2016.-856 p.</li> <li>2. Primer of Biostatistics. Seventh Edition. Stanton A. Glantz, Ph.-2009.-297p.</li> <li>3. Medical Statistics at a Glance Workbook. Front Cover. Aviva Petrie, Caroline Sabin. John Wiley &amp; Sons, 2013 - Medical - 120 p.</li> <li>4. SPSS Survival Manual 6th edition. Julie Pallant - 2016</li> </ol>
13	Non-parametric Tests (Mann-Whitney U-test, Wilcoxon U-test, Kruskal-Wallis Test, Friedman Test.	Mann-Whitney U-test, Wilcoxon U-test, Kruskal-Wallis Test, Friedman Test.	<ol style="list-style-type: none"> <li>1. Fundamentals of Biostatistics. Seventh Edition. Rosner. - 2016.-856 p.</li> <li>2. Primer of Biostatistics. Seventh Edition. Stanton A. Glantz, Ph.-2009.-297p.</li> <li>3. Medical Statistics at a Glance Workbook. Front Cover. Aviva Petrie, Caroline Sabin. John Wiley &amp; Sons, 2013 - Medical - 120 p.</li> <li>4. SPSS Survival Manual 6th edition. Julie Pallant - 2016</li> </ol>
14	Correlation (Pearson and Spearman) and regression. Survival analysis Log-rank test.	Correlation. Pearson's correlation coefficient. Spearman's rank correlation coefficient. The sensitivity of the correlation coefficient. Survival curve.	<ol style="list-style-type: none"> <li>1. Fundamentals of Biostatistics. Seventh Edition. Rosner. - 2016.-856 p.</li> <li>2. Primer of Biostatistics. Seventh Edition. Stanton A. Glantz, Ph.-2009.-297p.</li> <li>3. Medical Statistics at a Glance Workbook. Front Cover. Aviva Petrie, Caroline Sabin. John Wiley &amp; Sons, 2013 - Medical - 120 p.</li> <li>4. SPSS Survival Manual 6th edition. Julie Pallant - 2016</li> </ol>
15	Presentation of research work in a thesis	Planning and organization of scientific research. Definition of the research topic, aim and objectives. Formulation of Hypothesis. Definition of research methods. Developing of a questionnaire/patient card. Data collection. Enter data in the SPSS database. Choosing statistical tests and data analysis. Creating tables, formation of conclusions. Graphical representation of data. Preparing a presentation.	<ol style="list-style-type: none"> <li>1. Radaev V.V. How to organize and present a research project: 75 simple rules. - M.: SU-HSE: INFRA-M, 2011 - 203 p.</li> <li>2. Ospan E. Academic writing: the basics of writing a research paper., Almaty, 2020.-231 p.</li> </ol>



	№	Criterion (point-rating assessment)	10	8	6	4	2
			excellent	above average	acceptable	requires correction	excellent above unacceptable
Oral questioning, discussion	1	Basic knowledge of Epidemiology, Evidence-based Medicine and Biostatistics.	Full assimilation of the programme material. Demonstrated original thinking. Independently used additional literature.	Demonstrated standard thinking with full mastery of programme material.	Mastering of the material with non-principled inaccuracies in answers.	Learning the basics Understanding your mistakes and willingness to correct them.	Fundamental errors Constantly confused in answers, did not work through the core literature.
	2	Knowledge of research design in Epidemiology.					
	3	Knowledge of the epidemiology of communicable and non-communicable diseases.					
	4	Knowledge of searching and critically analyzing publications.					
	5	Organization of research.					
	6	Knowledge and skills of descriptive and inferential methods of Biostatistics.					
	7	Knowledge and skills of academic writing.					
	8	Solving Test Tasks - 20 tests 1 test - 1 point	<b>20</b>	<b>16-18</b>	<b>11-15</b>	<b>6-10</b>	<b>1-5</b>
	9	Group communication skills and professional attitude (especially when using IMO)	Contact and productive team member	Contactful and productive team member, although prefers individual work	Combines team and individual work	Tends to be individualistic	individual

**Point-rating assessment of the student's independent work under the guidance of a teacher (maximum, 50 points)**

№	Evaluation criteria	10 points	8 points	6 points	4 points
1.	Completeness and accuracy.	Completes the assignment completely. Applies critical thinking and analysis skills in completing the assignment. Effective	Completes the task with some inaccuracies. Shows standardized thinking and reasoning. Applies analysis skills. Good presentation of	Completion of the task with significant errors. Understands his/her mistakes and is ready to correct them. Weak analysis skills.	Failure to complete the assignment. Does not show scientific thinking and practical skills. Weak skills in analyzing and presenting the
2.	Critical thinking				
3.	Analytical skills				
4	Presentation of the assignment				

**CPC - creative assignment (maximum 90 points) + bonuses for English language**

		<b>20</b>	<b>15</b>	<b>10</b>	<b>5</b>
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<b>1</b>	Relevance of the problem	Very high	High	Sufficiently high	Not high
<b>2</b>	Informativeness				
<b>3</b>	Credibility				
<b>4</b>	Logicality and consistency				
<b>5</b>	Literature analysis				
<b>6</b>	Practical relevance				
<b>8</b>	Applicability in future practice				
<b>9</b>	Presentation				
<b>10</b>	Plagiarism check				
bonus	* - for Kazakh/Russian groups - English language; for groups studying in English - performing the task in Russian or Kazakh language				

## **Kaplan Medical USMLE Step 1: Behavioral Science Lecture Notes Paperback – January 1, 2013**