Al-Farabi Kazakh National University Faculty Medicine and Healthcare Chair on Epidemiology, biostatistics and evidence- based-medicine

PROGRAM OF THE FINAL EXAM ON COURSE

НАУҚАС ЖӘНЕ ҚОҒАМ/ПАЦИЕНТ И ОБЩЕСТВО/PATIENT AND SOCIETY

EDUCATION PROGRAMME 6B10103 GENERAL MEDICINE

8 credits

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FINAL EXAMINATION PROGRAM
ON THE DISCIPLINE "STATISTICAL METHODS IN PHARMACY" , 2023-2024 a.y.

The final exam is in a synchronous format - the student takes a test in the MOODLE system on the day according to the exam schedule in real time "here and now".
Test - test submission is monitored by an automatic proctoring system, a proctor or a teacher (in the absence of proctoring).
There will be 4 types of questions (types: single answer, multiple answer, true/false, matching). The number of test questions during the exam is 25 questions. Only 1 chance will be given. The test time is 60 minutes.
There will be proctoring or, in the absence of proctoring, a video recording will be made. The video will be saved for 3 months after the end of the session.

The test set covers the following topics:
□ Introduction to medical statistics. Indicators of descriptive statistics
□ Statistical description of data. Variables, types.
□ Comparison of several groups
□ Dispersion analysis
□ Comparison of two groups
□ Student criteria
□ Analysis of qualitative signs
□ Comparison of contributions
□ Chi-square criterion. Fisher's exact test
□ Sensitivity of criteria
□ Determining the size of the selected group
□ Confidence interval
□ Dependency analysis
□ Correlation analysis
□ Regression analysis
□ Analysis of secondary measurements
□ Student criteria for dependent groups
□ Analysis of variance for dependent groups
□ Non-parametric criteria
□ Mann-Whitney criterion
□ Wilcoxon criterion
□ Non-parametric criteria
□ Kruskal-Wallis criterion
□ Friedman criterion
□ Character criterion
□ Dynamic series
□ Seasonality index.
□ Method of absolute and relative differences.
□ Standardization method
□ Direct standardization
□ Reverse standardization

Reference:
The main
1. Fundamentals of Biostatistics. 8 t h E d i t i o n. Bernard Rosner, Harvard University. USA, 956 pp.
2. Aviva Petrie, Caroline Sabin. Visual medical statistics. Textbook for universities. Moscow, GEOTAR-Media, 2015. 168 c.

3.Nasledov A. N31 IBM S P S S Statistics 20 and AMOS: professional statistical analysis of data. - SPb.: Peter, 2013. 416c.

4.Elizabeth De Poy, Laura N. Gitlin; per. from Engl. ed. by V.V. Vlasov. Vlasov. Methods of scientific research in medicine and public health - M.: GEOTAR-Media, 2017. - 432 c.

5.Koichubekov, M. A. Sorokina, A. S. Bukeeva [et al] ; KSMU. Biostatistics in examples and tasks : textbook for universities / B. K.- Almaty : Evero, 2016.

THE ADDITIONAL

1.Koichubekov B.K. Biostatistics : textbook. -Evero, 2015.

2.High-Yield Biostatistics, Epidemiology, & Public Healthю FOUR EDITION, 2005, 46 pp.

3.Grzhibovsky A.M., Ivanov S.V., Gorbatova M.A. Descriptive statistics using the packages of statistica and SPSS statistical programs: distribution verification // Science and Health. 2016. № 1. C. 7- 23.

4.Grzhibovsky A.M., Ivanov S.V., Gorbatova M.A. Comparison of quantitative data of two independent samples using Statistica and SPSS software: parametric and nonparametric criteria // Science and Health. 2016. № 2. C. 5-28.

5.Grzhibovsky A.M., Ivanov S.V., Gorbatova M.A. Comparison of quantitative data of two paired samples using Statistica and SPSS software: parametric and nonparametric criteria // Science and Health. 2016. № 3. C. 5-25.

6.Grzhibovsky A.M., Ivanov S.V., Gorbatova M.A. Comparison of quantitative data of three and more independent samples using Statistica and SPSS software: parametric and nonparametric criteria// Science and Health Care. 2016. № 4. C. 5-37.

7.Grzhibovsky A.M., Ivanov S.V., Gorbatova M.A. Comparison of quantitative data of three and more paired samples using Statistica and SPSS software: parametric and nonparametric criteria // Science and Health. 2016. № 5. C. 5-29.