

APPROVED
at a meeting of the
Scientific Council
NJSC «Al-Farabi KazNU».
Minutes No.10 dated
May 23, 2022.

The program of the entrance exam for applicants to the PhD
for the group of educational programs
D084 - «Geography»

1. General provisions.

1. The program was drawn up in accordance with the Order of the Minister of Education and Science of the Republic of Kazakhstan dated October 31, 2018 No. 600 “On Approval of the Model Rules for Admission to Education in Educational Organizations Implementing Educational Programs of Higher and Postgraduate Education” (hereinafter referred to as the Model Rules).

2. The entrance exam for doctoral studies consists of writing an essay, passing a test for readiness for doctoral studies (hereinafter referred to as TRDS), an exam in the profile of a group of educational programs and an interview.

Block	Points
1. Essay	10
2. Test for readiness for doctoral studies	30
3. Exam according to the profile of the group of the educational program	40
4. Interview	20
Total admission score	100/75

3. The duration of the entrance exam is 4 hours, during which the applicant writes an essay, passes a test for readiness for doctoral studies, and answers an electronic examination. The interview is conducted on the basis of the university separately.

2. Procedure for the entrance examination.

1. Applicants for doctoral studies in the group of educational programs D084 - «Geography» write a problematic / thematic essay. The volume of the essay is at least 250-300 words.

2. The electronic examination card consists of 3 questions.

Topics for exam preparation according to the profile of the group of the educational program.

Discipline "History and methodology of geographical science"

Economic, social and political geography. Changing geographic paradigms and their reflection in economic and social geography. Geographic scientific schools. Sectoral and regional approaches in economic and geographical science. French School of Human Geography. "Radical geography", "behavioral geography". The main directions of "humanistic geography". Differentiation in economic, social and political geography. Classification of changes associated with the transition of leading countries to the post-industrial stage of development. Branches of modern geographical science: geoeconomics, geodemography, geo-urban studies, neogeography and geopolitics.

Discipline "Forecasting the state of natural and economic systems"

Geography of the main branches of the economy. Geographic regionalization. Shifts in the territorial organization of the economy under the influence of scientific and technological revolution. The concept of natural resource potential and its economic, social, environmental and cultural assessment of the rational use of natural resources and environmental protection. Influence of anthropogenic and technogenic changes in nature on socio-economic processes. The concept of economic and geographical zoning. The theory of applied economic and geographical research for the development and implementation of regional planning and territorial design. Types of world economic relations. Types of agriculture and territorial systems of the agro-industrial complex. Agricultural zoning. Classification of territorial systems of industry. Methodological schemes for the economic and geographical study of industrial enterprises of various types. Industrial, transport and other territorial systems.

Discipline "Geography of the population and labor resources of the Republic of Kazakhstan"

Modern demographic processes in the Republic of Kazakhstan. Demographic situation. Population migration in Kazakhstan. Differentiation of ecological and demographic problems in the Republic of Kazakhstan. The distribution of the population and the degree of population in the territory of the Republic of Kazakhstan. Calculation of indicators of the structure of the population. Classification of the population by sex and age. Calculation of population indicators. The level of urbanization and the development of a network of urban settlements. Geography of rural settlements.

Discipline "Geoinformation technologies for geographical scientific research"

Application of geographic information systems in economic, social and political geography. Solving typical economic and geographical problems at the intersection of economics, geography, demography, cartography and geoinformatics. Similarities and differences between the mathematical method, the cartographic method, the visual method and the questionnaire survey method in geographical research. "Cartographic Modeling". Remote sensing and GIS technologies in geosystem modeling. GIS technologies in spatial modeling of geosystems. Earth remote sensing instruments. Spatial databases and digital terrain models.

3. List of references.

Main:

1. География мирового хозяйства. Учебник. Отв. ред. Н.С.Мироненко. - М.: Изд-во "Трэвэл Медиа Интернэшнл", 2012. -352 с.
2. География населения и социальная география / Вопросы географии. Сб. 135. Отв. ред. А. И. Алексеев, А. А. Ткаченко. М.: Издательский дом «Кодекс», 2013. –552 с.
3. Доманьски Р. Экономическая география: динамический аспект. Пер. с пол. – М.: Новый хронограф, 2010. –376 с.)
4. Географическое положение и территориальные структуры: памяти И. М. Маергойза [сост.: П. М. Полян, А. И. Трейвиш]. – М.: Новый хронограф, 2012. –896 с.
5. География мирового развития. Вып. 1. Сб. научн. статей. Под ред. Л.М.Синцера. – М.: Ин-т географии РАН, 2009. –606 с.
6. География мирового развития. Вып. 2. Сб. научных статей. Под ред. Л.М.Синцера. – М.: Тов-во научных изданий КМК, 2010. – 496 с
7. Анохин А.А., Житин Д.В. География населения с основами демографии. Учебник. – М.: Юрайт, 2019. –203 с.,
8. Нюсупова Г.Н., Токбергенова А.А., Актымбаева А.С. и др. «Территориальная дифференциация качества жизни населения в регионах Республики Казахстан. Учебное пособие. Часть 2.» А: 2020 – 167
9. Введение в геоинформационные системы: Учебное пособие / Я.Ю. Блиновская, Д.С. Задоя. - М.: Форум: НИЦ Инфра-М, 2013. - 112 с. Трофимов А. М., Игонин Е. И.
10. Концептуальные основы моделирования в географии (Развитие основных идей и путей математизации и формализации в географии). Казань: Изд-во «Матбугат йорты», 2001. 340 с.

Additional:

1. Burghardt, D., Duchêne, C. & Mackaness, W. eds., 2014. Abstracting Geographic Information in a Data Rich World: Methodologies and Applications of Map Generalisation, Berlin Heidelberg: Springer International Publishing, 407 p. DOI: 10.1007/978-3-319-00203-3,
2. Kimerling J.A., Buckley A.R., Muehrcke P.C., Muehrcke J.O. Map Use: Reading Analysis, Interpretation 8th edition. Esri Press, 2016, 670 p
3. Сладкопечев С.А. Землеведение и природопользование: учебное пособие для вузов. – М., 2005. – 357с.
4. Исаченко А.Г. Ландшафтоведение и физико-географическое районирование. – М.: Высшая школа, 1991.
5. Хван, Т.А. Экология. Основы рационального природопользования: учеб. пособие / Т. А. Хван, М. В. Шинкина. - 5-е изд., перераб. и доп. - Москва: Юрайт, 2013. - 319 с.
6. Шабалова, В.И. Основы природопользования: учеб. пособие / В. И. Шабалова; Калинингр. гос. техн. ун-т. - Калининград: КГТУ, 2015. - 93 с
7. Клицунова, Н.К., Решетникова, А.Н., Федорцова, Т.А. Методы географических исследований // Н.К. Клицунова, А.Н. Решетникова, Т.А. Федорцова / БГУ: Мн., 2005. – 124 с.
8. География населения и социальная география / Вопросы географии. Сб. 135. Отв. ред. А. И. Алексеев, А. А. Ткаченко. М.: Издательский дом «Кодекс», 2013. –552 с.
9. Доманьски Р. Экономическая география: динамический аспект. Пер. с пол. – М.: Новый хронограф, 2010. –376 с