MINISTRY OF EDUCATION AND SCIENCE OF THE REPUBLIC OF KAZAKHSTAN

KAZAKH NATIONAL PEDAGOGICAL UNIVERSITY NAMED AFTER ABAI

CATALOG OF ELECTIVE SUBJECTS

6B05203- Geography

Department of Geography and Ecology

Cycle	The name of the disciplines and their main sections		Total ECTS
ООД	**THE CYCLE OF GENERAL EDUCATION SUBJECTS**		
CC	**COMPONENT OF CHOICE (CC)**		**5**
1.	**FUNDAMENTALS OF ECONOMICS AND ENTREPRENEURSHIP**		
	"Fundamentals of Economics and Entrepreneurship" is one of the important courses in the system of economic education at the university, which reveals the development of the basics of economics and business, a comprehensive analysis of business methods in the modern economy and market, the state and trends of development of all types of economic systems. Currently, economic and legal relations are increasingly global and socially oriented. The main task of this direction is to search for patterns, development trends in all diversity and unity of social production, which should approach world standards and experience. The purpose of the subject is the formation of students' ability to apply theoretical and practical knowledge about economics and the basics of entrepreneurship based on the study of methods of studying economics and entrepreneurship, their place in the general system of science and values, the history of development and the current state for the application of this knowledge in everyday life.	**LO: 2,3,5**	**5**
2.	**LEGAL AND ANTI-CORRUPTION FOUNDATIONS OF PROFESSIONAL AND RESEARCH ACTIVITIES**		
	Basic provisions of the Constitution, current legislation of the Republic of Kazakhstan; system of government bodies, scope of powers, goals, methods of state regulation of the economy, role of the state sector in the economy; financial law and finance; mechanism of interaction between substantive and procedural law; the essence of corruption, its causes; the measure of moral, ethical and legal responsibility for corruption offenses; current legislation in the field of counteracting corruption.	**LO: 2,3,5**	**5**
3.	**ECOLOGY AND SUSTAINABLE DEVELOPMENT**		
	The discipline "Ecology and Sustainable Development" is aimed at forming students' holistic understanding of changes in natural complexes, their causes and solutions. The basic concepts of ecology, the formation and development of ecology as a science, as well as the concept of the biosphere as a global ecosystem are considered. The types of environmental pollution are classified, an explanation is given of global, regional and local environmental problems of our time, the causes of their occurrence and the consequences for the environment. ; The principles of international cooperation in solving global environmental problems are explained.	**LO: 2,3,5**	**5**
4.	**FUNDAMENTALS OF FINANCIAL LITERACY**		
	The subject "Fundamentals of Financial Literacy" is aimed at developing students' basic knowledge and skills in personal finance management, rational budget planning, use of financial instruments, assessment of financial risks and making informed economic decisions. The course covers personal and family budgets, methods of planning them, financial institutions and their role in the economy, types of income and expenses, and ways to optimize them. The purpose of the subject is to teach effective methods for solving personal finance problems.	**LO: 2,3,5**	**5**
CBPD	**THE CYCLE OF BASIC AND PROFILE DISCIPLINES**		
5.	**METEROLOGY AND CLIMATOLOGY**		
	Meteorology and Climatology provides students with the knowledge to study, understand and predict atmospheric phenomena and climate change. This subject teaches students to understand weather and climate conditions, their changes, effects and consequences. Meteorology is the science that studies short-term atmospheric phenomena.In this unit, students will learn about the formation of weather, its changes, air temperature, humidity, pressure, winds, precipitation and other meteorological factors.	LO: 7,8,9.	**4**

6.	**CLIMATE CHANGE AND ITS CONSEQUENCES**		
	Purpose: to study topical issues of global climate change. Students can: • contribute to the independent observation of weather and climate changes to assess extreme weather events; • analyze different approaches to climate change research and predict their consequences; • to investigate the effects of temperature rise, extreme weather events, etc. on climate change; • to assess the possible consequences of climate changes in individual territories of the country associated with global climate change.	LO: 7,8,9.	4
7.	**PHYSICAL GEOGRAPHY OF CONTINENTS AND OCEANS**		
	The purpose of mastering the discipline is to form students' holistic view of the nature of the world. Contents: General patterns of formation of the nature of continents and the World Ocean. Geographical conditions of the World Ocean. Properties of the World Ocean. Overview of the Southern and Northern continents. Features of human development of natural resources of land and ocean. Problems of the current state of the continents and the protection of the natural environment. Competencies: distinguishes between diversity and regional features of land and ocean.	LO: 6, 9.	6
8.	**MANAGEMENT OF SUSTAINABLE DEVELOPMEN**		
	The concept of sustainable development. Global management of sustainable development. Actual problems of state management of sustainable development. National Monitoring of Carbon Emissions. Management of the development of urbanized territories. Carbon market. Circular economy. Regional management of sustainable development. Corporate ESG strategies. Climate project management. World energy and decarbonization. Topical issues of sustainable development in the fuel and energy complex. Economics of RES. Advanced technologies and development prospects in the fuel and energy complex. International Energy Security. Estimation and modeling of risks of innovative development. Risk management of innovation activities. Quantitative methods for risk assessment. Modeling in risk assessment.	LO: 8,11.	**5**
9.	**GEOGRAPHICAL FUNDAMENTALS OF MANAGEMENT**		
	The objectives of the course: the formation of students' ability to analyze the influence of territorial, natural and economic systems that are formed on the earth's surface in the process of interaction between nature and society, on the adoption of managerial decisions and the possibility of their implementation. Geography in the modern world, the main problems and prospects of geography. Methods of geographical research and the main sources of geographical information.	LO: 11, 12.	**5**
	PROFESSIONAL (PROFILE) DISCIPLINES		
10.	**WORLD HERITAGE GEOGRAPHY**		
	World Heritage - objects of value to the whole world. Cultural and natural heritage, world heritage map. Types of protected natural areas of the planet. Selection criteria and classification of cultural heritage sites. Natural landscapes and beautiful natural objects, historical monuments, cultural customs and other sights of regions and countries. Objects of natural and cultural heritage of Kazakhstan. Protection of world natural and cultural sites	LO: 11, 12.	**5**
11.	**BIOGEOGRAPHY**		
	The purpose of the course is to acquire specific ideas about the faunal and floristic regions of the Earth's land, the diversity of flora and fauna of natural zones of the Earth and oceans, and the main types of soils. Structure of biogeography, general biogeography, plant geography, animal geography. The place of biogeography in the system of biological and geographical sciences. Basic concepts of biogeography. A brief history of the formation and development of biogeography as a science. The practical significance of biogeography in the protection of the animal and plant world on Earth.	LO: 6, 9.	**5**
12.	**TOPONYMY**		
	The main goal of the course is to study the basics of toponomy, acquire the skills of studying one's own area, determine the relationship of a geographical name with historical, literary, local history, etc. Content: Studies place names, their origin, semantic meaning, development,	LO: 7, 10.	**4**

	current state, spelling and pronunciation, understanding the place of toponymy in the system of sciences. Formed skills: development of creativity, including research and development; the formation of the need for the independent acquisition of knowledge in toponymy.		
13.	**REGIONAL GEOGRAPHY**		
	The purpose of studying the discipline is to understand the "images" of the political system of countries, to study their nature, the population as a whole and individual peoples of the country, its history and culture, the characteristics of politics, economy and the environment. Countries of the world, regional geographic survey: natural conditions and resources, population and economy, etc. The history of the formation and development of countries: Europe, Asia, North and South America, Africa, Australia and Oceania.	LO: 7, 10.	**5**
14.	**TECHNOLOGY OF TEACHING GEOGRAPHY AND NATURAL SCIENCES**		
	The purpose of studying the discipline is to familiarize yourself with innovative teaching methods of geography and natural sciences, modern educational programs, methods and fields of their application. The structure and content of geography and science at school. The subject and problems of innovative technologies in geography and science	LO: 6, 9.	**5**
15.	**TEACHING GEOGRAPHY USING STEM TECHNOLOGY**		
	Opportunity to develop dual knowledge and skills. Develop skills in critical thinking, analysis, interpretation and research of geographical data using elements of modern science, technology, engineering and mathematics with geographical education The use of geographic information systems is aimed at encouraging the creation of practical and collaborative projects, solving environmental problems, sustainable development and climate change.	LO: 1, 5, 7.	**5**
16.	**GEOGRAPHY OF FLOODS**		
	Floods as the largest natural disaster on a global scale. The largest floods in the world. Floods in Kazakhstan. Flood categories based on natural parameters. Causes of floods. Classification of floods. Delineation of flood-prone zones. Mathematical and cartographic modeling of flood zones. Use of remote sensing (RS) data in flood research. Space platforms for monitoring changes on Earth. Flood monitoring and forecasting. Methods of geoecological analysis of flood consequences.	LO: 7, 12.	**5**
17.	**SPACE METHODS IN GEOGRAPHY**		
	Acquaintance with the possibilities of space methods for studying the Earth and the application of research results in various fields of human activity. Space methods. Observation and photography of the Earth and other planets from space. Ground-based observations of the movement of spacecraft using optical, photographic and laser systems. Photomethods: solving problems by converting photographs of the earth's surface. According to the location of the photographing device, they are divided into terrestrial and air. Combined methods	LO: 8, 11.	**4**
19.	**DECIPHERING SPACE IMAGES**		
	Types and basic properties of space images. The concept of decrypting snapshots. Decryption signs. Scale and spatial resolution. Satellite data of medium and high spatial resolution in the optical range. The main combinations of spectral channels used for visual interpretation. Thematic interpretation of objects, processes and phenomena based on medium and high resolution images. A method for analyzing space images based on interpretation.	LO: 8, 11.	**4**
20.	**ECONOMIC AND SOCIAL GEOGRAPHY OF THE WORLD**		
	The economic and social geography of the world studies the territorial organization of society, its laws and laws, the territorial differentiation of socio-economic phenomena and processes. The purpose of studying the discipline is to gain knowledge about the world political map, understanding the laws and laws of the functioning of society, the characteristics of the development of the world economy. Natural conditions and resources. The population of the world. Scientific and technological revolution and its impact on the world economy.	LO: 9, 11.	**5**
21.	**GEOGRAPHY OF THE MODERN WORLD**		
	The purpose of the discipline is to form a deep knowledge of the dynamics of the modern world, the globalization of the world economy, the	LO: 9, 11.	**5**

	ability to understand and evaluate the ideas of the new order. Diversity and integrity of the modern world. Grouping of countries by level of socio-economic development. Economic and historical-geographical regions, regional policy, periphery and centers. International relations at the present stage. Sustainable development concept. Geography of the world economy. Specialization of countries of certain regions.		
22.	**RECREATIONAL GEOGRAPHY**		
	Purpose: to reveal the concept of recreational geography. Content: The place of recreational geography in the system of sciences. Familiarization with recreational resources, tourist development and prospects of tourism development in various regions of Kazakhstan, CIS countries and countries of the world, as well as with the main theoretical concepts of science. Competencies: to assess territories with recreational resources and prospects for the development of tourism in Kazakhstan.	LO: 7, 12.	**5**