



LIST OF COURSES IN ENGLISH OFFERED IN 2018/2019

| Study branch | Study programme | Study course/Study discipline | Year of study | *Semester | ECTS credits | *Number of lessons per week | Teacher | Brief summary of the Study course/Study discipline |
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| 5B05011200 Chemistry | <i>2 Modular educational program Multilingual chemistry</i> | Ecology and basics of life safety | 1 | 1 | 3 | 2+1+0 | Bobrenko M.A. | The course “ Ecology and basics of life safety” is aimed at the formation of ecological worldview, getting deep system knowledge and understanding of the fundamentals of sustainable development of society and nature, theoretical and practical knowledge of modern approaches of rational use of natural resources and environmental protection. The course also covers the main aspects of a person's safe life |
| 5B05011200 Chemistry | <i>2 Modular educational program Multilingual chemistry</i> | Labour protection in chemistry | 1 | 2 | 3 | 1+2+0 | Kobets T.S. | The objectives of this discipline is to give students basic concepts about health and its constituent parts: safety, occupational health, fire safety and help to master the skills of safe operation under typical laboratory operations |
| 5B05011200 Chemistry | <i>2 Modular educational program Multilingual chemistry</i> | Pedagogy | | | | | | |
| 5B05011200 Chemistry | <i>2 Modular educational program Multilingual chemistry</i> | Theory and methods of educational work | | | | | | |

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| 5B05011200 Chemistry | <i>2 Modular educational program Multilingual chemistry</i> | Information and communication technologies | 2 | 2 | 3 | 1+2+0 | Nadyrova F.K.- Lecturer Eslyamov S.G.- Practice | Mastering students of professional and personal competences who will give the chance to use the modern information communication technologies in different areas of professional activity, scientific and practical operation, for self-educational and other purposes. Along with the practical purpose, the course realizes the educational and educational purposes, promoting extension of an outlook, increase of their general culture and education. |
| 5B05011200 Chemistry | <i>2 Modular educational program Multilingual chemistry</i> | Chemistry of elements of periodic system | 2 | 1 | 4 | 2+2+0 | Kobets T.S. | The course "Chemistry of elements of the periodic system" is aimed at deepening of knowledge on the actual material, concepts, chemical laws and theories; familiarizing students with the properties of simple and complex substances and using them in industry, in the household and in everyday life, their role in solving environmental problems; the formation of a certain amount of chemical knowledge and the further development of practical skills |
| 5B05011200 Chemistry | <i>2 Modular educational program Multilingual chemistry</i> | Methods of solving problems in chemistry | 2 | 2 | 3 | 1+2+0 | Kobets T.S. | "Methods of solving tasks in chemistry" is one of the important disciplines in chemical education. "Methods of solving tasks in chemistry" play an important place in the methods of learning and provides deeper and more complete learning of chemistry and develop skills of independent application of acquired knowledge. Students in the problem-solving process to foster hard work, dedication, developing a sense of responsibility, tenacity, perseverance in achieving this goal |
| 5B05011200 | <i>2 Modular</i> | Introduction to | | | | | | |

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| Chemistry | <i>educational program Multilingual chemistry</i> | the teaching profession | | | | | | |
| 5B05011200 Chemistry | <i>1 Modular educational program Chemistry</i> | Theory and methods of educational work | | | | | | |
| 5B05011200 Chemistry | <i>1 Modular educational program Chemistry</i> | Methods of teaching chemistry | 3 | 1 | 3 | 2+0+1 | Kobets T.S. | The course methodology of teaching chemistry completes the professional training of future teacher of chemistry. Programme teaching methods of chemistry constructed in accordance with the achievements of pedagogical science and practice, taking into account the further improvement of the school chemical education and training students in chemistry and pedagogy |
| 5B05011200 Chemistry | <i>1 Modular educational program Chemistry</i> | The technique of carrying out of school chemical experiment | 4 | 1 | 2 | 2+0+1 | Kobets T.S. | The course of the methodology of the school chemical experiment completes the professional training of the future teacher of chemistry. The course program is built in accordance with the achievements of pedagogical science and practice, taking into account the further improvement of school chemical education and the preparation of students in chemistry and pedagogy |
| 5B05011200 Chemistry | <i>1 Modular educational program Chemistry</i> | Classification of inorganic compounds | 4 | 1 | 2 | 0+2+0 | Chashkov V.N. | In connection with the ongoing course in the Republic of Kazakhstan for the introduction, development and improvement of the policy of trilingualism, the problem of expanding the scope of using English is becoming an urgent issue. When studying chemistry, as in principle and any other science, today it is necessary to actively use English as the most important means of obtaining information |

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| 5B05011300 Biology | <i>2 Modular education program Multilingual biology</i> | Ecology and basics of life safety | 1 | 1 | 3 | 2+1+0 | Bobrenko M.A. | The course “ Ecology and basics of life safety” is aimed at the formation of ecological worldview, getting deep system knowledge and understanding of the fundamentals of sustainable development of society and nature, theoretical and practical knowledge of modern approaches of rational use of natural resources and environmental protection. The course also covers the main aspects of a person's safe life |
| 5B05011300 Biology | <i>2 Modular education program Multilingual biology</i> | Cytology and histology | 1 | 1 | 3 | 2+0+1 | Bozhekenova Zh.T. | Cytology (from Greek κύτος, kytos, "a hollow"; and -λογία, -logia) is the study of cells. Cytology is the branch of life science that deals with the study of cells in terms of structure, function and chemistry. Histology, also microanatomy, is the study of the anatomy of cells and tissues of plants and animals using microscopy |
| 5B05011300 Biology | <i>2 Modular education program Multilingual biology</i> | Pedagogy | | | | | | |
| 5B05011300 Biology | <i>2 Modular education program Multilingual biology</i> | Theory and methods of educational work | | | | | | |
| 5B05011300 Biology | <i>2 Modular education program Multilingual biology</i> | Principles of chemistry | 2 | 2 | 3 | 1+2+0 | Chashkov V.N. | General chemistry is the first chemical discipline for the students of the specialty “Biology”. General chemistry covers basic concepts in general chemistry, chemistry of elements, inorganic chemistry and forms necessary foundations in chemical knowledge |
| 5B05011300 | <i>2 Modular</i> | Introduction to | | | | | | |

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| Biology | <i>education program Multilingual biology</i> | the teaching profession | | | | | | |
| 5B05011300 Biology | <i>2 Modular education program Multilingual biology</i> | Information and communication technologies | 2 | 2 | 3 | 1+2+0 | Nadyrova F.K. | Mastering students of professional and personal competences who will give the chance to use the modern information communication technologies in different areas of professional activity, scientific and practical operation, for self-educational and other purposes. Along with the practical purpose, the course realizes the educational and educational purposes, promoting extension of an outlook, increase of their general culture and education. |
| 5B05011300 Biology | <i>2 Modular education program Multilingual biology</i> | Theory and methods of educational work | | | | | | |
| 5B05011300 Biology | <i>2 Modular education program Multilingual biology</i> | Methodology of teaching biology | 3 | 1 | 3 | 2+1+0 | Bobrenko M.A. | This course develops methodological knowledges and skills of the teach of biology at school. It provides for students with knowledge about the processes of learning, development and education of students in biology class; studies of the theory of teaching methods of biology. Methods of teaching biology develops the foundations of scientific and practical knowledge in connection with changes in the content of education in the Republic of Kazakhstan, as well as in the implementation of the Law on the Republic of Kazakhstan education, enabling students to learn theoretical and practical provisions technologizing educational process. The study various |

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| | | | | | | | | forms of lessons for the implementation of the basic educational and training needs |
| 5B05011300 Biology | <i>2 Modular education program Multilingual biology</i> | Introduction to entomology | 3 | 2 | 3 | 1+2+0 | Bragina T.M. | Introduction to Entomology as science studies the diversity of insects, the features of their origin, development, the current position in the animal world, the role in the biosphere and human life: features of morphology and activity of insects (the external structure of insects, the main types of mouthparts, legs, wings), internal structure, insect taxonomy, phylogeny of insects, the morpho-physiological features of different systematic groups of insects, a diversity of insects and basic methods of entomological research |
| 5B05011300 Biology | <i>2 Modular education program Multilingual biology</i> | Soil Zoology | 3 | 2 | 3 | 1+2+0 | Bragina T.M. | Soil Zoology as science studies the diversity and the role of living organisms in the formation of soils and soil fertility, the basic ecological groups of soil organisms and their composition, soil organisms as bio-indication of soil and environmental monitoring, classification of soil animals, systematic and phylogeny of major taxons and their characteristics, distribution and importance of major taxonomic groups, practical skills to identify soil animals, the methods of studying of soil animals |
| 5B05011300 Biology | <i>2 Modular education program Multilingual biology</i> | Algology and ecology of reservoirs | 3 | 2 | 3 | 1+0+2 | Borodulina O.V. | Investigation the most ancient group of photosynthetic organisms, their biochemical, cytological, morphological and other features, biodiversity and systematics |
| 5B05011300 Biology | <i>2 Modular education program Multilingual biology</i> | Molecular biology | 4 | 1 | 2 | 1+1+0 | Bozhekenova Zh.T. | Molecular biology is a branch of biochemistry which concerns the molecular basis of biological activity between biomolecules in the various |

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| | <i>biology</i> | | | | | | | systems of a cell, including the interactions between DNA, RNA, and proteins and their biosynthesis, as well as the regulation of these interactions |
| 5B05011300 Biology | <i>2 Modular education program Multilingual biology</i> | Zoogeography | 4 | 1 | 2 | 1+0+1 | Bragin E. A. | Zoogeography as science studies the general regularities of distribution of vertebrate animals, principles of zoogeographic zoning of the World Ocean and Earth surface, the characteristics of the fauna zoogeographic realms, regions and sub-regions, and historical ways of their formation, system zoogeographic realms and regions and their main characteristics; island zoogeography; fauna as a historically constituted community of animals, change factors of fauna at present time and the role of man in the process |
| 5B05011600 Geography | <i>2 Modular educational program Geography and biology multilingual</i> | Ecology and basics of life safety | 2 | 1 | 2 | 2+1+0 | Bobrenko M. A. | The course “Ecology and basics of life safety” is aimed at the formation of ecological worldview, getting deep system knowledge and understanding of the fundamentals of sustainable development of society and nature, theoretical and practical knowledge of modern approaches of rational use of natural resources and environmental protection. The course also covers the main aspects of a person's safe life |
| 5B05011600 Geography | <i>2 Modular educational program Geography and biology multilingual</i> | Nomenclature of physical geography of the world | 2 | 1 | 3 | 1+0+2 | Koval V.V. | This course is the first geographical discipline for students in the specialty "Geography". This discipline covers the basic concepts of physical geography, studies the main volume of nomenclature objects of continents and oceans of different categories on the physical map of the world and their qualitative differences and forms the |

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| | | | | | | | | necessary bases for working with a geographic map |
| 5B05011600 Geography | <i>2 Modular educational program Geography and biology multilingual</i> | Pedagogy | | | | | | |
| 5B05011600 Geography | <i>2 Modular educational program Geography and biology multilingual</i> | Theory and methods of educational work | | | | | | |
| 5B05011600 Geography | <i>2 Modular educational program Geography and biology multilingual</i> | Geographical characteristics of continents and oceans | 2 | 1 | 3 | 1+2+0 | Koval V.V. | This course studies general information about the laws of atmospheric processes and phenomena in the atmosphere, and considers the questions of climatology. Students acquire practical skills in observations in the field of meteorology and climatology, work with meteorological instruments (thermometer, hygrometer, etc.), read synoptic maps |
| 5B05011600 Geography | <i>2 Modular educational program Geography and biology multilingual</i> | Soil geography | 2 | 2 | 3 | 1+0+2 | Koval V.V. - lecturer Zagorulka V.V.- Practice | The course is aimed at the formation of deep system knowledge in the field of physical geography of continents and oceans. As a result of studying the discipline, students should know the general patterns of the nature of continents and oceans, interconnection between continents and oceans, the characteristics of the natural conditions of individual continents, the position of the main geographical objects on the physical map, the history of discovery and study of continents and oceans |
| 5B05011600 Geography | <i>2 Modular educational</i> | Introduction to the teaching | | | | | | |

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| | <i>program Geography and biology multilingual</i> | profession | | | | | | |
| 5B05011600 Geography | <i>2 Modular educational program Geography and biology multilingual</i> | Information and communication technologies | 2 | 2 | 3 | 1+2+0 | Nadyrova F. K. | Mastering students of professional and personal competences who will give the chance to use the modern information communication technologies in different areas of professional activity, scientific and practical operation, for self-educational and other purposes. Along with the practical purpose, the course realizes the educational and educational purposes, promoting extension of an outlook, increase of their general culture and education. |
| 5B05011600 Geography | <i>2 Modular educational program Geography and biology multilingual</i> | Theory and methods of educational work | | | | | | |
| 5B05011600 Geography | <i>2 Modular educational program Geography and biology multilingual</i> | Basics of meteorology and climatology | 3 | 1 | 3 | 1+0+2 | Koval V. V. | This course studies the fundamentals of soil science. The course is forming knowledge about the soil, its composition, structure, genesis, physical, chemical and biological properties, types and their geography in the world |
| 5B05011600 Geography | <i>2 Modular educational program Geography and biology multilingual</i> | Geoecology and nature protection | 4 | 1 | 2 | 1+1+0 | Bobrenko M. A. | This course contributes to the formation of a worldview based on the priority of an environmental resource-saving attitude to the environment in the light of modern industrialization of society. Formation of students' knowledges of the geosystem, its main elements, structural levels and the relationship between them, of environmental factors and their interactions in ecosystems, of |

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| | | | | | | | | the ecological properties of the natural environment, geoecological zoning of the Republic of Kazakhstan, of the main regional ecological problems of the Republic of Kazakhstan and the problems of biodiversity conservation in the flora and fauna of our Republic |
| 5B05011600 Geography | <i>2 Modular educational program Geography and biology multilingual</i> | Protected areas and principles of biodiversity conservation | 4 | 1 | 3 | 1+2+0 | Bobrenko M. A. | This course is aimed at the formation of the studying of the principles of conservation of biological diversity, the general principles of organization and operation of specially protected natural areas, their types. Students study levels of biological diversity, main types of SPNA, their tasks and representation in the world and the RK, Red and Green books, IUCN black list, fundamentals of environmental legislation and international treaties in the field of environmental protection |
| 5B011900 "Foreign language: two foreign languages" (English) | <i>Educational program 1. Learning FL in basic school</i> | Basic foreign language | | | | | | |
| 5B011900 "Foreign language: two foreign languages" (English) | <i>Educational program 1. Learning FL in basic school</i> | Practical grammar 1FL | | | | | | |
| 5B011900 "Foreign language: two foreign languages" (English) | <i>Educational program 1. Learning FL in basic school</i> | Country study 1FL | | | | | | |
| 5B011900 "Foreign language: two foreign languages" (English) | <i>Educational program 1. Learning FL in basic school</i> | Practice of oral and written speech | | | | | | |

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| (English) | | | | | | | | |
| 5B011900 "Foreign language: two foreign languages" (English) | <i>Educational program 1. Learning FL in basic school</i> | Country study 1FL | | | | | | |
| 5B011900 "Foreign language: two foreign languages" (English) | <i>Educational program 1. Learning FL in basic school</i> | Foreign language | | | | | | |
| 5B011900 "Foreign language: two foreign languages" (English) | <i>Educational program 1. Learning FL in basic school</i> | Home reading (literature) 1FL | | | | | | |
| 5B011900 "Foreign language: two foreign languages" (English) | <i>Educational program 1. Learning FL in basic school</i> | Practical grammar 1FL | | | | | | |
| 5B011900 "Foreign language: two foreign languages" (English) | <i>Educational program 1. Learning FL in basic school</i> | Basic foreign language in the context of intercultural communication | | | | | | |
| 5B011900 "Foreign language: two foreign languages" (English) | <i>Educational program 1. Learning FL in basic school</i> | Methods of foreign language education | | | | | | |
| 5B011900 "Foreign language: two foreign languages" (English) | <i>Educational program 1. Learning FL in basic school</i> | Basic foreign language | | | | | | |
| 5B011900 "Foreign language: | <i>Educational program 1.</i> | Theoretical grammar 1FL | | | | | | |

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| two foreign languages" (English) | <i>Learning FL in basic school</i> | | | | | | | |
| 5B011900 "Foreign language: two foreign languages" (English) | <i>Educational program 1. Learning FL in basic school</i> | Methods of teaching a foreign language | | | | | | |
| 5B011900""Foreign language: two foreign languages" (English) | <i>Educational program 1. Learning FL in basic school</i> | Language for special purposes (basic C1) | | | | | | |
| 5B011900 "Foreign language: two foreign languages" (English) | <i>Educational program 1. Learning FL in basic school</i> | Lexicology 1FL | | | | | | |
| 5B011900 "Foreign language: two foreign languages" (English) | <i>Educational program 1. Learning FL in basic school</i> | New technologies of teaching FL in basic school | | | | | | |
| 5B011900 "Foreign language: two foreign languages" (English) | <i>Educational program 1. Learning FL in basic school</i> | Theoretical phonetics 1FL | | | | | | |
| 5B011900 "Foreign language: two foreign languages" (English) | <i>Educational program 1. Learning FL in basic school</i> | Modern modelling lesson at a basic school | | | | | | |
| 5B011900 "Foreign language: two foreign languages" (English) | <i>Educational program 1. Learning FL in basic school</i> | Project methodology of teaching a foreign language in a basic school | | | | | | |
| 5B011900 | <i>Educational</i> | Professionally | | | | | | |

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| "Foreign language: two foreign languages" (English) | <i>program 1. Learning FL in basic school</i> | oriented foreign language (level C1) | | | | | | |
| 5B011900 "Foreign language: two foreign languages" (English) | <i>Educational program 1. Learning FL in basic school</i> | Language for special purposes (basic C1) | | | | | | |
| 5B011900 "Foreign language: two foreign languages" (English) | <i>Educational program 1. Learning FL in basic school</i> | Stylistics | | | | | | |
| 5B011900 "Foreign language: two foreign languages" (English) | <i>Educational program 1. Learning FL in basic school</i> | Language for special purposes (basic C1-C2) | | | | | | |
| 5B011900 "Foreign language: two foreign languages" (English) | <i>Educational program 1. Learning FL in basic school</i> | Literature of the country of the studied language | | | | | | |
| 5B011900 "Foreign language: two foreign languages" (English) | <i>Educational program 1. Learning FL in basic school</i> | Professionally oriented foreign language (level C1) | | | | | | |
| 5B011900 "Foreign language: two foreign languages" (English) | <i>Educational program 1. Learning FL in basic school</i> | Professional orientation of the teacher | | | | | | |
| 5B011900 "Foreign language: two foreign languages" (English) | <i>Educational program 1. Learning FL in basic school</i> | Language for academic purposes | | | | | | |

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| <p>(English) 5B010900 Mathematics</p> | <p><i>Educational program 3. Mathematics multilingual for the Kazakh group</i></p> | <p>Ecology and basics of life safety</p> | <p>1</p> | <p>1</p> | <p>3</p> | <p>2+1+0</p> | <p>Bobrenko M.I.</p> | <p>The course “ Ecology and basics of life safety” is aimed at the formation of ecological worldview, getting deep system knowledge and understanding of the fundamentals of sustainable development of society and nature, theoretical and practical knowledge of modern approaches of rational use of natural resources and environmental protection. The course also covers the main aspects of a person's safe life</p> |
| <p>5B010900 Mathematics</p> | | <p>Algebra and number theory</p> | <p>1</p> | <p>1</p> | <p>3</p> | <p>2+1+0</p> | <p>Alimbayev A.A.</p> | <p>The program of the course consists of several parts. The first part is devoted to the elements of set theory, where the basic concepts of mathematics are studied, which are common in various disciplines, namely, the concepts of set, correspondence, and function. In the section "Algebraic systems" we introduce the concepts of algebra as sets with algebraic operations, study numerical systems, introduce a system of complex numbers, give elementary information from the theory of groups and ring theory. Basic concepts such as the notion of homomorphism and isomorphism, fields and rings are illustrated with concrete examples. In the section "Linear algebra" linear and Euclidean spaces, linear operators, and the theory of determinants and systems of linear equations that are widely used in the study and solving many theoretical and practical issues. In the section "Number theory", the main questions of elementary number theory are considered: the divisibility relation in \mathbb{Z}, and also the theory of</p> |

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| | | | | | | | | congruences and elementary applications of the theory of congruences. The sections "Groups, rings" give an idea of the concepts underlying modern algebra. In the "Polynomials" section we study the general theory of polynomials in one and several variables. When studying the properties of polynomials, it is recommended to compare the studied properties with the corresponding properties of integers |
| 5B010900 Mathematics | | Algebra and number theory | 1 | 2 | 3 | 2+1+0 | Alimbayev A.A. | The program of the course consists of several parts. The first part is devoted to the elements of set theory, where the basic concepts of mathematics are studied, which are common in various disciplines, namely, the concepts of set, correspondence, and function. In the section "Algebraic systems" we introduce the concepts of algebra as sets with algebraic operations, study numerical systems, introduce a system of complex numbers, give elementary information from the theory of groups and ring theory. Basic concepts such as the notion of homomorphism and isomorphism, fields and rings are illustrated with concrete examples. In the section "Linear algebra" linear and Euclidean spaces, linear operators, and the theory of determinants and systems of linear equations that are widely used in the study and solving many theoretical and practical issues. In the section "Number theory", the main questions of elementary number theory are considered: the divisibility relation in Z , and also the theory of |

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| | | | | | | | | congruences and elementary applications of the theory of congruences. The sections "Groups, rings" give an idea of the concepts underlying modern algebra. In the "Polynomials" section we study the general theory of polynomials in one and several variables. When studying the properties of polynomials, it is recommended to compare the studied properties with the corresponding properties of integers |
| 5B010900 Mathematics | <i>Educational program 1. Mathematics multilingual</i> | Pedagogy | | | | | | |
| 5B010900 Mathematics | | Information and communication technologies | 2 | 2 | 3 | 1+2+0 | Nadyrova F.K.- Lecturer Eslyamov S.G.- Practice | Mastering students of professional and personal competences who will give the chance to use the modern information communication technologies in different areas of professional activity, scientific and practical operation, for self-educational and other purposes. Along with the practical purpose, the course realizes the educational and educational purposes, promoting extension of an outlook, increase of their general culture and education. |
| 5B010900 Mathematics | | Practicum on the solution of geometric problems | 2 | 3 | 3 | 1+2+0 | Alimbayev A.A. | Education of students creative approach to solving mathematical problems, to form the skills and skills of independent tasks, to help develop the desire for a scientific search for ways to improve their future work. - formation of skills to solve the problems of the school course of mathematics; - familiarity with the basic methods of solving problems; |

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| | | | | | | | | <ul style="list-style-type: none"> - Formation of methodical abilities and skills of the future teacher. - obtaining systematic knowledge in the field of methods for solving problems ; - obtaining skills in solving mathematical problems ; - Formation of methodical abilities and skills of the future teacher . ; <p>As a result of studying this discipline, students should know:</p> <ul style="list-style-type: none"> - the value of the course of mathematics, in general vocational education ; - psychological and pedagogical aspects of mastering the subject ; - the relationship between the course of school mathematics and scientific mathematics, the most important areas of its application in the context of realizing the ideas of humanizing the tasks of continuing education |
| 5B010900 Mathematics | | Theory and methods of educational work | | | | | | |
| 5B010900 Mathematics | | Mathematical analysis | 2 | 4 | 3 | 1+2+0 | Alimbayev A.A. | <p>The discipline "Mathematical Analysis" is a basic part of mathematics and natural science disciplines in the direction of preparation 5B010900 teacher of mathematics.</p> <p>The content of the discipline covers a range of issues related to the basics of mathematical analysis: elements of set theory, the limit and continuity of a function of one variable, the derivative of a function of one variable and its applications functions of several variables, integral calculus and differential equations, numerical and power series. In this course, we consider in detail the integral</p> |

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| 5B011000 Physics | <i>Educational program 3. Physics multilingual</i> | Elementary physics | 1 | 1 | 2 | 1+1+0 | Kasymova A.G. | <p>calculus of a function of one variable</p> <p>The course of physics in the approximate program of the school education is structured on the basis of consideration of various forms of the motion of matter in the order of their complication: mechanical phenomena, thermal phenomena, electromagnetic phenomena, quantum phenomena. Physics in the main school is studied at the level of consideration of the phenomena of nature, acquaintance with the basic laws of physics and the application of these laws in engineering and everyday life.</p> <p>Objectives of the study of physics: The study of physics in educational institutions of basic general education is aimed at achieving the following goals:</p> <ul style="list-style-type: none"> · mastering knowledge of mechanical, thermal, electromagnetic and quantum phenomena; the values characterizing these phenomena; the laws to which they are subject; methods of scientific knowledge of nature and the formation on this basis of ideas about the physical picture of the world; · Mastering the skills of observing natural phenomena, describing and generalizing the results of observations, using simple measuring instruments for studying physical phenomena; To present the results of observations or measurements with the help of tables, graphs and to identify empirical dependencies on this basis; apply the knowledge acquired to explain a variety of natural phenomena and processes, the principles of the operation of the most important technical devices, to solve physical |
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| | | | | | | | | <p>problems; ·</p> <p>Development of cognitive interests, intellectual and creative abilities, independence in acquiring new knowledge in solving physical problems and performing experimental research using information technologies; ·</p> <p>Education of conviction in the possibility of cognition of nature, in the necessity of rational use of the achievements of science and technology for the further development of human society, respect for the creators of science and technology; relations to physics as an element of universal human culture; ·</p> <p>Application of the acquired knowledge and skills to solve practical problems of daily life, to ensure the safety of one's life, rational use of nature and protection of the environment</p> |
| 5B011000 Physics | | Ecology and basics of life safety | 1 | 2 | 3 | 2+1+0 | Bobrenko M.I. | <p>The course “ Ecology and basics of life safety” is aimed at the formation of ecological worldview, getting deep system knowledge and understanding of the fundamentals of sustainable development of society and nature, theoretical and practical knowledge of modern approaches of rational use of natural resources and environmental protection. The course also covers the main aspects of a person's safe life</p> |
| 5B 011100 Informatics | <i>Educational program 3. Informatics and information technologies in education (for multilingualism)</i> | Ecology and basics of life safety | 1 | 1 | 3 | 2+1+0 | Bobrenko M.I. | <p>The course “ Ecology and basics of life safety” is aimed at the formation of ecological worldview, getting deep system knowledge and understanding of the fundamentals of sustainable development of society and nature, theoretical and practical knowledge of</p> |

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| | | | | | | | | modern approaches of rational use of natural resources and environmental protection. The course also covers the main aspects of a person's safe life |
| 5B 011100 Informatics | | Algorithms and programming in Pascal | 1 | 1 | 3 | 1+2+0 | Tsyganova A.D. | <p>The purpose of the course "Algorithmization and programming" is the formation of the scientific Outlook of students, increasing creative activity, the formation of professional qualities of the future teacher of computer science in programming, teaching students the basics of representation of algorithms, rules of designing algorithms, the basics of programming in one of the educational programming languages.</p> <p>The objectives of this course is to teach students the necessary knowledge in the field of building algorithms for solving standard problems; obtaining the necessary skills to develop algorithms and implement algorithms in the programming environment.</p> |
| 5B 011100 Informatics | | Algorithms and programming in Pascal | 1 | 2 | 3 | 1+2+0 | Tsyganova A.D. | <p>The purpose of the course "Algorithmization and programming" is the formation of the scientific Outlook of students, increasing creative activity, the formation of professional qualities of the future teacher of computer science in programming, teaching students the basics of representation of algorithms, rules of designing algorithms, the basics of programming in one of the educational programming languages.</p> <p>The objectives of this course is to teach students the necessary knowledge in the field of building algorithms for solving</p> |

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| | | | | | | | | standard problems; obtaining the necessary skills to develop algorithms and implement algorithms in the programming environment. |
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Explanatory notes:

***Semester 2017/18**

I semester - 04/09/2017 - 30/12/2017

II semester - 15/01/2018 - 12/05/2018 (1st - 2nd grades)
15/01/2018 - 09/06/2018 (3rd grade)

Length of semester - 15 weeks

Exam period - 2 weeks

Altogether - 17 weeks

***Semester 2018-2019**

I semester - 03/09/2018 - 29/12/2018

II semester - 14/01/2019 - 01/06/2019

***Number of lessons per week:** Lecture+ Seminar/Workshop + Laboratory work