

   MINISTRY OF EDUCATION AND SCIENCE OF THE REPUBLIC OF KAZAKHSTAN

SOUTH KAZAHSTAN STATE UNIVERSITY

named after M. Auezov

“Approved” by

Rector \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Doctor of history science,

Academician

Kozhamzharova D.P .

"\_\_\_" \_\_\_\_\_\_\_\_\_ 20 \_\_\_ y.

**EDUCATIONAL PROGRAM**

\_\_\_\_\_\_\_\_\_\_ 6V08140 - Fruit and vegetable growing

|  |  |
| --- | --- |
| Registration number | - |
| Code and classification of the field of education | 6В08 - Agriculture and bioresources |
| Code and classification of training areas | 6В081 - Agronomy |
| Group of educational programs | B077- Agronomy |
| Type of EP | acting |
| ISQE level | 6 |
| NQF level | 6 |
| IQF level | 6 |
| Language of instruction | Kazakh, Russian, English |
| Typical Duration | 4 years |
| Form of training | Full-time, DE |
| The complexity of EP | 24 1 credits |
| Distinctive features of EP | Dual training |
| University partner (JEP) | - |
| University partner (DDEP) | - |
| Social partner ( DE ) | ESPC “Kainar Bulak” , “ Zhas Keshu” |

Shymkent, 2020y

Developers:

|  |  |  |
| --- | --- | --- |
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EP considered by the committee on innovative educational technologies and methodological support of the Agrarian faculty ,

Protocol number \_\_\_\_\_   of « \_\_ » \_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2020y

Chairman of the Committee \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Abdullaeva G.A.

Considered and recommended for approval at a meeting of the Training Council of SKSU named after  M. Auezov

Protocol No. \_\_\_ of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2020y

Approved by the decision of the Academic Council of the University

Protocol № \_\_\_\_\_ of "\_\_\_\_" \_\_\_\_\_\_\_\_\_\_2020y

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**Introduction**

1. **Application area**

It is intended for the preparation of bachelors in educational (here in after - EP) 6V08140 – “Fruit and vegetable growing " in the RSE on BEM "South Kazakhstan State University named after M. Auezov” MES RK.

1. **Regulatory documents.**

The Law of the Republic of Kazakhstan “On Education” (with [amendments and additions](https://translate.google.com/translate?hl=ru&prev=_t&sl=ru&tl=en&u=http://online.zakon.kz/Document/%3Flink_id%3D1000664096) as of July 4, 2018);

Standard rules for the activities of educational organizations implementing educational programs of higher and (or) postgraduate education, approved by order of the Minister of Education and Science of the Republic of Kazakhstan dated October 30, 2018 No. 595 (registered with the Ministry of Justice of the Republic of Kazakhstan October 31, 2018 No. 17657);

State generally binding standards of higher and postgraduate education, approved by order of the Minister of Education and Science of the Republic of Kazakhstan dated October 31, 2018 No. 604;

Rules for the organization of the educational process on credit technology of education, approved by order of the Minister of Education and Science of the Republic of Kazakhstan dated April 20, 2011 No. 152 with amendments and additions dated October 12, 2018 No. 563;

Professional standard “Growing vegetables and potatoes” Order of the Board of the National Chamber of Entrepreneurs of the Republic of Kazakhstan “Atameken” No. 339 dated 12/12/2018.

Professional standard “Horticultural activity” Order of the Board of the National Chamber of Entrepreneurs of the Republic of Kazakhstan “Atameken” No. 339 dated 12/12/2018.

Professional standard “Production of greenhouse vegetables and berries” Order of the Board of the National Chamber of Entrepreneurs of the Republic of Kazakhstan “Atameken” No. 263 dated 12/26/2019.

Professional standard “Viticulture” Order of the Board of the National Chamber of Entrepreneurs of the Republic of Kazakhstan “Atameken” No. 263 dated 12/26/2019.

**3 Educational program concept**

The purpose of the educational program is consistent with the mission of the university and is aimed at preparing the country's intellectual elite, with advanced knowledge of entrepreneurial skills, fluent in three languages, demonstrating the skills of conceptual, analytical and logical thinking, a creative approach to professional activities, able to work in a national and international team, learn lifelong learning strategy.

The educational program is harmonized with the 6th level of the National Qualifications Framework of the Republic of Kazakhstan, with Dublin descriptors, 1 cycle of the Qualification Framework of the European Higher Education Space. (A Framework for Qualification of the European Higher Education Area), so also with 6 levels European Qualification framework for formation in the course of the whole life (The European Qualification Framework for Lifelong Learning) .

The educational program is focused on professional and social order through the formation of professional competencies related to the necessary types of research, practical and entrepreneurial activities, adjusted to meet the requirements of stake holders.

The uniqueness of this EP is, that carried out the practice-oriented training. EP provides students an expansive education in agricultural sciences with the transition on the dual training system. To implement the EP, the Department of Vegetable growing and animal husbandry is provided with an excellent material and technical base. There are two modern greenhouses at the department, which makes it possible to conduct various experiments on growing vegetable crops year-round and, in practice, not breaking away from classroom studies, to consolidate the material covered. The department also has at its disposal an experimental site “Kainarbulak” with an area of 2.8 hectares for growing fruit trees, a vineyard, vegetable crops in open ground, grain crops, as well as forage crops. On the field, students carry out all agricultural activities, activities to combat pests and diseases.

EP "Fruit and vegetable growing" is a modern program that develops students' theoretical and practical skills, which helps them to understand the broader agricultural system. On department have a good faculty - teaching potential. Teachers of the department have experience in research institutes, employees of leading agricultural enterprises. Close long-term cooperation with the leading agricultural production, such as LLP "Dala Fruit ", LLP "Ken Tau ", LLP "Kok Tal", LLP "Kazagronom", LLP "Adel" also borne fruit in the field of education and employment.

Students who have mastered the Fruit and Vegetable Production Association can work using theoretical and practical knowledge gained in the field of processing, storage, production and marketing of agricultural products. The department has the opportunity to develop cooperation on international relations. So, from time to time be invited to give lectures and conduct research projects known foreign scientists, who have enough high ratings.

Bachelor graduates who have mastered EP "Horticulture", gives a wide range of jobs: they are available to senior positions, such as a consultant of major field crop and horticultural organizations and enterprises, business manager of the firms, producing and selling crop products. Bachelor’s agronomists can successfully work as manager of greening parks and nurseries to create and maintain private locations enterprises for the production of non-traditional products in crop raw materials and other fields agricultural production.

This educational program is developed taking into account the achievements of modern domestic and world experience in this field, copyright and collective works and educational and methodological developments in the field of specialization, requirements of employers and labor market demands.

The educational program is aimed at achieving learning outcomes through the organization of the educational process using the principles of the Bologna process, student- centered learning, accessibility and inclusiveness.

The learning outcomes of the program are achieved through the following training activities:

- classroom training: lectures, seminars, practical and laboratory classes - conducted with the use of innovative teaching technologies, the use of the latest achievements of science, technology and information systems;

- extracurricular activities: independent work of the student, including under the guidance of a teacher, individual consultations;

- conducting professional practices, carrying out term papers and dissertations (projects).

The university has taken measures to maintain academic honesty and academic freedom, to protect against any kind of intolerance and discrimination against students.

The quality of the EP is ensured by the involvement of stakeholders in its development and evaluation, systematic monitoring and review of its content.

**4. Requirements to incomes**

Established in accordance with the Model Rules of reception on training in organization of education, realizing the educational programs of higher and postgraduate education order MES RK № 600 from 10.31.2018

**PASSPORT OF THE EDUCATIONAL PROGRAM**

**1.1 The purpose and objectives of the educational program in the specialty**

The purpose of the EP: Preparation of competitive bachelors in the field of Fruit and vegetable growing, with broad fundamental knowledge , satisfying the needs of society in highly qualified personnel.

Objectives of the EP:

**- the**formation of socially responsible behavior in society, understanding the importance of professional ethical standards and following these standards;

- providing skills and lifelong learning skills that will allow them to successfully adapt to changing conditions throughout their professional career;

- providing conditions for acquiring a high general intellectual level of development, mastery of a competent and developed speech, a culture of thinking and skills of the scientific organization of labor in the field of agriculture;

- the formation of competitiveness of graduates in the field of production, protection and processing of crop products, to ensure the possibility of their fastest possible employment in the specialty or to continue their education at the next level of study.

**1.2 List of qualifications and positions**

A graduate in this  academic degree is awarded the degree “ Bachelor of Agriculture ” in the educational program 6В08140 - “ Fruit and vegetable growing ” .

Graduates with a degree in "Fruit and vegetable growing" may hold positions growers, grower to the various farmers, farms for industry Fruit and vegetable growing, primary positions in research institutions without requiring a length of service in accordance with the qualification requirements of the Qualification handbook for managers, professionals and other employees approved by order of the Minister of Labor and Social Protection of the Population of the Republic of Kazakhstan dated May 21, 2012 No. 201-ө-m.

**1.3 Qualification characteristics of the graduate of the educational program**

**1.3.1 Scope of professional activity**

The sphere of professional activity is agro-industry first complex:

- republican, regional, district state institutions of agriculture;

- joint - stock companies, production cooperatives, limited liability partnerships, agricultural firms;

- farm, individual, collective farms;

- experimental research institutions in the field of horticulture ;

- enterprises for the storage and processing of fruits and vegetables ;

**1.3.2 Objects of professional activity**

The objects of professional activity of graduates who have mastered the bachelor's program in the specialty "Fruit and vegetable growing" include:

      research and production centers of the Ministry of Agriculture of the Republic of Kazakhstan, farms and peasant farms, private production cooperatives, joint-stock companies, limited liability partnerships, etc .; agricultural colleges.

**1.3.3 Items of professional activity**

Objects of professional activity of bachelor on specialty 6V081 4 0 - Horticulture  is the system:

- agricultural land ;

- organic, mineral, green fertilizers;

- Irrigation th water and ;

- horticultural plants and grapes and their varieties.

**1.3. 4 Types of professional activity**

Bachelor in specialty 6B08140 - "Fruit and vegetable growing" can perform the following professional activities:

*organizational and technological*- organization of production, placement of plantings of fruit and vegetable crops, provision of planting stock, storage, processing and marketing of products on a regional and regional scale;

*production and management*- drawing up patterns of crop rotation in vegetable growing, fruit nursery and greenhouses, testing and implementation of advanced technological methods that allow to obtain high yields of fruit, berry and vegetable crops and organize storage, processing and marketing of products;

*Experimental research*- etc. The behavior of the production testing of new varieties and methods of cultivation of fruit and vegetables;

*financial and economic*- calculation of financial and labor resources for the production, storage and sale of fruits and vegetables;

*consultation*- consultation of specialists and workers employed in the field of horticulture ;

*educational (pedagogical)*- teachers in agricultural colleges

**2.EDUCATIONAL RESULTS  FOR EP**

**ER 1** Free communicate in a professional environment and society on Kazakh, Russian and English language.

**ER2** Demonstrate scientific, social, socio-economic knowledge in professional work, methods of mathematical data, theoretical and experimental research, regulatory documents and elements of economic analysis.

**ER3** On the knowledge of information and computational literacy, be able to independently determine the goals of the study and choose ways to achieve it; the ability to generalize, analyze and perceive information, summarize the statistical processing of experimental results, formulate conclusions.

**ER** 4 Arguably substantiate the choice of methods for growing, sowing and planting seedlings and seedlings of fruits and vegetables, horticultural crops and grapes, highly productive varieties for growing in open and closed ground.

**ER** 5 Recognize the main types and varieties of soils, justifying the direction of their use in agriculture and methods of reproduction of fertility.

**ER 6** To have ability to identify pests of agricultural crops according to morfo-biological grounds of damage and to take preventive measures; identify diseases of agricultural plants by signs of damage, by the symptoms of the disease and take measures to prevent infection.

**ER 7** To carry out monitoring examinations for the diagnosis and prognosis of the spread of pests and pathogens; be able to carry out protective measures.

**ER 8** Successfully use the methods of phyto-sanitary monitoring for the implementation of activities of fight with pests, diseases and weeds, agricultural crops and land.

**ER** 9 Demonstrate competence in matters of selection and configuration, in the principles of operation and operation of the main domestic and foreign mechanisms and units used in horticulture, horticulture and vegetable growing.

**ER** 10 It is effective to use high-tech research methods when determining the needs of fruits and vegetables, horticultural crops in nutrients by their various types and varieties, taking into account their biology and microbiology, regional natural resources and farming systems.

**ER 11** And use research, entrepreneurial and work skills in the face of uncertainty.

**ER 12** It is effective to work individually and as a member of a team, correctly defend your point of view, adjust your actions and use various methods, maintaining a healthy lifestyle.

**3 EP GRADUATE COMPETENCE**

3.1 Successful completion of training in EP contributing of forming graduates the following competencies :

-key competencies (KC) ;

Key competencies:

in the field of native and foreign (English) languages (KC 1 )

- the ability to express and understand concepts, thoughts, feelings, facts in written and oral forms (listening, speaking, reading and writing), creatively in all the variety of social and cultural contexts: during study, at work, at home and at leisure ; skills in mediation and intercultural understanding;

fundamental natural science and scientific preparation (KC 2 )

- the ability and willingness to use the educational potential, experience and personal qualities acquired during the study of natural sciences, technical disciplines at the university, to determine ways to control and evaluate the solution of professional problems, the development of analytical and natural thinking;

to computer (KC 3 )

- the ability to confidently and critically use modern information and digital technologies for work, leisure and communication, mastery of the skills of use, restoration, evaluation, storage, production, presentation and exchange of information by computer, communication and participation in collaborating networks via the Internet in the field of professional activity ;

with social (KC 4 )

- the ability to own socio-ethical values based on public opinion, traditions, customs, norms and navigate them in their professional activities; know the cultures of the peoples of Kazakhstan and observe their traditions; observe the foundations of the legal system and legislation of Kazakhstan, know the trends in the social development of society; be able to adequately navigate in various social situations; be able to find compromises, correlate your opinion with the opinion of the team; own business ethics, ethical and legal norms of behavior; strive for professional and personal growth; work in a team, correctly defend your point of view, propose new solutions; demonstrate tolerance towards other individuals;

economic, managerial and entrepreneurial (KC 5 )

- the ability to know and understand the goals and methods of state regulation of the economy, the role of the public sector in the economy; own the basics of economic knowledge; possess the skills of critical thinking, interpretation, creativity of analysis, drawing conclusions, evaluation; manage projects to achieve professional goals, manage staff, demonstrate entrepreneurial skills ;

cultural training (KC 6 )

- the ability to know and understand the traditions and culture of the peoples of Kazakhstan, is tolerant to the traditions and culture of other peoples of the world, is aware of the attitude of tolerant behavior; not subject to prejudice, has high spiritual qualities, is formed as an intelligent person .

***Professional competencies:***

PC- 1- to have knowledge of the main types of crops, their biological, varietal and economic characteristics, environmental requirements , phyto-sanitary monitoring of pests, diseases and weeds of agricultural lands using modern digital methods and the preparation of an effective plan of protective measures; select a set of crops for crop rotation, taking into account the climatic conditions of the region of cultivation ;

PC- 2- to have the methods of calculating the doses of organic and mineral fertilizers for the planned crop determines the method and technology of their application for crops;

PC- 3- to justify and use crop rotation, soil maintenance systems in field crop cultivation, apply weed protection in plantings and crops of field crops ;

PC-4 - have knowledge of the selection of crop varieties for specific conditions of the region and the level of intensification of agriculture, prepare seeds for sowing; apply technologies for the production of planting material, bookmarks and crop care;

PC-5 - produce development of agro-technical measures to improve the fertility of soil; to have admission s assessment of soil fertility and reproduction .

**3.2 Matrix of correlation of learning outcomes of EP in general education with formed competences of modules**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **P 1** | **P 2** | **P3** | **P 4** | **P5** | **P 6** | **P 7** | **P8** | **P 9** | **P10** | **P11** | **P12** |
| KC 1 | **+** |  |  | **+** |  |  |  |  |  |  |  |  |
| KC 2 |  | **+** |  |  |  |  |  |  |  | **+** |  |  |
| KC 3 | **+** |  | **+** |  |  |  |  |  |  |  |  |  |
| KC 4 | + |  |  |  |  |  |  |  |  |  |  | **+** |
| KC 5 |  |  |  | **+** |  |  |  |  |  |  | **+** |  |
| KC 6 | + |  |  |  |  |  |  |  |  |  |  | **+** |
| PC 1 |  |  |  | + |  | + |  | + | + |  |  |  |
| PC 2 |  |  |  |  | + |  |  | + | + | + |  |  |
| PC 3 |  |  |  |  |  | + |  | + |  |  |  |  |
| PC 4 |  |  |  | + |  |  |  | **+** |  |  |  |  |
| PC 5 |  |  |  |  | + | + |  |  |  | + | **+** |  |

1. **SUMMARY TABLE REFLECTING THE VOLUME OF DEVELOPED LOANS IN THE CONTEXT OF MODULES OF THE EDUCATIONAL PROGRAM**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Course of Study | Semester | The number of mastered modules | Number of studied  disciplines | | | Amount of credits | | | | | | Total hours | Amount | |
| OC | HSK | EC | Theoretical education | Physical  training | Training practice | Internship  Undergraduate practice | final examination | KZ |  | exam | Dif. offset |  |
| 1 | 1 | 3 | 4 | - | 4 | 29 | 2 |  |  |  | 31 | 930 | 6 | 2 |  |
| 2 | 5 | 5 | 2 | 1 | 27 | 2 | 1 |  |  | 30 | 900 | 6 | 2 |  |
| 2 | 3 | 4 | 2 | 3 | 2 | 28 | 2 |  |  |  | 30 | 900 | 5 | 2 |  |
| 4 | 6 | 2 | 3 | 3 | 25 | 2 |  | 3 |  | 30 | 900 | 6 | 2 |  |
| 3 | 5 | 3 | - | 3 | 3 | 30 |  |  |  |  | 30 | 900 | 6 | - |  |
| 6 | 4 | - | 2 | 3 | 24 |  |  | 6 |  | 30 | 900 | 4 | 1 |  |
| 4 | 7 | 4 | - | 2 | 2 | 15 |  |  | 5 |  | 20 | 600 | 3 | 1 |  |
| 8 | 4 | - | - | 5 | 20 |  |  |  |  | 20 | 600 | 5 | - |  |
| 9 | 1 |  | 1 | 1 | - |  |  | 8 | 12 | 20 | 600 | - | - |  |
| **Total** |  |  | **13** | 16 | **24** | **198** | **8** | **1** | **22** | **12** | **241** | **7230** | **41** | **10** |  |

1. **Information about disciplines**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Module name** | **Cycle** | | **HSC / EC** | | **Component Name** | | **Discipline Summary**  **(30-50 words)** | **Number of credit** | **Formed ER**  **(codes)** |
| **Social Sciences Module** | GED | | OC | | The modern history of Kazakhstan | | It allows you to classify the conceptual foundations of Russian history, to interpret the origins , continuity of Kazakh statehood and the actual problems of the history of modern Kazakhstan.        Exposure analysis d ce and the national intelligentsia in shaping the ideology of the liberation movement , and e tap s socio-economic modernization of Kazakhstan.      Characterize the creation of a    democratic state of law.      Assessing the contribution of the First President to the theory and practice of public administration. | 5 | ER 1  ER2 |
| GED | | OC | | Philosophy | | A special form of human mental activity is considered, aimed at a comprehensive rational understanding of the world and human being in it. Philosophy also means the historically developing totality of the results of this activity and the system of theoretical principles within which it is carried out. | 5 | ER 1  ER2 |
| **Socio-Political Knowledge Module** | GED | | OC | | Sociology and Political Science | | The formation of scientific knowledge about the socio-political structure of a modern society, about the mechanism for implementing power decisions, the mastery of the basic methods of measuring various models of political systems and regimes, social phenomena and their relationship with  political processes. | 4 | ER 1  ER2 |
| GED | | HSC / EC | | Ecology and the basics of life safety | | We study the relationship of organisms, including humans, with the environment, determining the extent and permissible limits of the impact of human society on the environment, the possibilities of reducing these effects or their complete neutralization. Skills are being developed strategically - this is the science of the survival of mankind and the way out of the ecological crisis, which is gaining global proportions - throughout the entire planet of the Earth. | 3 | ER 1  ER2 |
| GED | | HSC / EC | | Fundamentals of entrepreneurial skills and anti-corruption culture | | Generates knowledge about the organization of the company, doing business. Develops the skills of business planning of production and sale of products, market analysis; calculation of profit, income, profitability, solvency, liquidity of the company.  Considers the essence, the factors of corruption. Forms an anti-corruption worldview, culture. It develops a civic stand for corruption, realizes the values ​​of moral awareness of anti-corruption. It instills the skills of critical analysis of corruption phenomena. | 3 | ER 1  ER2 |
| GED | | HSC / EC | | Fundamentals of Law and Economics | | Considers the role of the state in market development, competition, demand, supply. It instills the skills of calculating costs, income, indicators of the circuit and capital turnover. Allows you to critically examine the markets of factors of production, factor income. Forms knowledge of the law. It instills the skills of analyzing the legitimacy of events, the ability to apply to regulatory acts. Raises the level of legal consciousness, legal culture. | 3 | ER1  ER2 |
| GED | | OC | | Culturology and Psychology | | It took shape as a science only in our century, and even closer to its second half. The socio-ethical values of society as a product of integration processes in basic knowledge systems of the disciplines of the socio-cultural-psychological module; analyze the characteristics of psychological institutions in the context of their role in the modernization of Kazakhstani society; formulate programs for resolving conflict situations in society, including in professional society; to be able to correctly express and defend their own opinion having social significance. | 4 | ER 1  ER2 |
| **Communicative mobility module** | GED | | OC | | Kazakh (Russian) language | | The development of cognitive and communicative activity in Russian (Kazakh) language in the areas of interpersonal, social, intercultural communication.  The inculcation of skills to discuss ethical, cultural, socially significant norms in discussions, the ability to work in a team, teamwork, creativity .  Development of practical skills for interpreting text information, explaining their style, genre specifics in various areas of communication. | 5 | ER 1  ER2 |
| GED | | OC | | Foreign language | | The development of cognitive and communicative activities in English in the areas of interpersonal, social, intercultural communication.  The development of skills to discuss ethical, cultural, socially significant norms in discussions, the ability to work in a team, teamwork, flexibility, creativity .  Development of practical skills for interpreting text information, explaining their style, genre specifics in various areas of communication. | 5 | ER 1  ER2 |
| GED | | OC | | Physical Culture | | Examines the levels of development of essential motor skills and physical ka honors and creates the preconditions for multilateral manifestations of creative activity. Physical [culture](https://translate.google.com/translate?hl=ru&prev=_t&sl=ru&tl=en&u=http://wikiwhat.ru/%25D0%259A%25D1%2583%25D0%25BB%25D1%258C%25D1%2582%25D1%2583%25D1%2580%25D0%25B0) promotes education that FIR universal [values](https://translate.google.com/translate?hl=ru&prev=_t&sl=ru&tl=en&u=http://wikiwhat.ru/%25D0%25A6%25D0%25B5%25D0%25BD%25D0%25BD%25D0%25BE%25D1%2581%25D1%2582%25D1%258C) as [health](https://translate.google.com/translate?hl=ru&prev=_t&sl=ru&tl=en&u=http://wikiwhat.ru/%25D0%2597%25D0%25B4%25D0%25BE%25D1%2580%25D0%25BE%25D0%25B2%25D1%258C%25D0%25B5) , physical and mental well-being. | 4 | ER12 |
| PD | | HSC | | Professional Kazakh (Russian) language | | Development of the ability to establish contacts at a professional level, competently build communications based on goals and communication situations  The inculcation of creativity, innovation, and collegiality in the process of building a program of speech behavior in the Kazakh (Russian) language in the field of professional communication. | 3 | ER 1  ER2 |
| PD | | HSC | | Professionally-oriented foreign language | | It studies based on the needs of students in studying a foreign language dictated by the characteristics of a future profession or specialty. It involves a combination of mastery of a professionally oriented foreign language with the development of personal qualities of students, knowledge of the culture of the country of the language being studied and the acquisition of special skills based on professional and linguistic knowledge. The essence of professionally oriented teaching of a foreign language lies in its integration with special disciplines in order to obtain additional professional knowledge and the formation of professionally significant personality traits. | 3 | ER 1  ER2 |
| PD | | EC | | Kazakh alphabet based on latin graphics | | The study of Kazakh sounds, taking into account the features of their pronunciation, the study of the phonetic features of Kazakh words and phrases based on Latin graphics. Development of literacy skills based on the Latin alphabet. The ability to read texts in the Kazakh language using Latin graphics. | 3 | ER 1  ER2 |
| PD | | EC | | Academic writing | | It studies linguistic competence, the knowledge of which allows the researcher to read, understand and write scientific texts. The section contains recommendations for the preparation, writing and publication of scientific texts, reports and publications. | 3 | ER 1  ER2 |
| PD | | EC | | Mukhtarology  Mukhtarovedenie | | The life and work of M.O. Auezov is being studied; analyzes the creative laboratory of the writer, his biography in the context of creativity; as the creator of the science of Abaevology; Researchers Fat Manas. Acquaintance with M. Auezov as a prominent public figure. The skills of analyzing the literary heritage of M. Auezov in world and eastern literature are developing. They instill feelings of patriotism and love for the homeland. | 3 | ER2 |
| PD | | EC | | Abaeology  Abaevedenie | | It studies the multifaceted work of the great Kazakh poet and thinker, enlightener-democrat A. Kunanbaev, full of deep ideas in the field of philosophy, literature, history, pedagogy, psychology. It reflected the advanced ideas of the modern Kazakh society. Abay pays a lot of attention to issues of state structure, organization of the court of biys, the origin and education of Kazakh nationalities, the purpose of art, the role of the poet in the life of the people, the forms and contents of art, the nature of man, his cognitive abilities. Covering the ethical issue, Abay tried to reveal the reason for the fall of the ruling class. | 3 | ER2 |
| PD | | EC | | Actual problems and the modernization of public consciousness | | It forms a sense of cohesion, unity of the nation and responsibility in the professional specialty of the agronomic direction. A new approach to solving the problems of structural change in society is the need for computer literacy, knowledge of foreign languages, the upholding of the principle of pragmatism and professional success, by increasing our literacy and knowledge. Openness and susceptibility to the best achievements of agricultural production through the industrialization of agrotechnological processes. | 3 | ER2 |
| GED | | OC | | Information and Communication Technologies (in English) | | Create a new global environment in which modern graduates of educational institutions have to communicate, carry out professional activities. In this regard, one of the main goals of higher vocational education, along with the development of language-communicative competence, is the development of information competence that allows students to create information resources, share them, extract information for educational purposes from the Internet. The use of ICT in teaching a foreign language allows you to create optimal conditions for the simultaneous formation of foreign-language communicative and informational types of competencies. | 5 | ER2 |
| **Fundamentals of Natural Sciences** | PD | | HSC | | Agrometeorology | | Formation of ideas, knowledge and skills about agrometeorological factors and their combinations affecting the growth, development and productivity of agricultural crops: study of normative agrometeorological indicators of agricultural needs in the main environmental factors; meteorological phenomena hazardous to agriculture and methods of protection against them; agrometeorological forecasting methods and agricultural climate assessment. | 4 | ER4  ER10 |
| PD | | EC | | Agricultural Microbiology | | The formation of knowledge on the basics of general agricultural microbiology and the ability to use the acquired knowledge to solve the practical problems of agricultural production: to study systematics, morphology, genetics, bacterial reproduction; microorganism metabolism involved  microorganisms in the transformations of various compounds; study soil microorganisms and master the methods for determining their composition and activity; the possibility of using microorganisms in agricultural production technologies. | 5 | ER 5  ER10 |
| PD | | EC | | Microorganism Biotechnology | | The basic laws of microbiology, soil microorganisms and methods for their determination, microbiological processes for the preparation of organic fertilizers, the development of microbiological production of products, agricultural biological products are examined. The development of skills to prepare preparations of microorganisms, distinguish between the main forms of bacteria, quantify microorganisms in various substrates, obtain accumulative, pure cultures of microorganisms, conduct qualitative reactions to the products of metabolism of microorganisms. | 5 | ER 5  ER10 |
| PD | | HSC | | Standardization, Certification and Metrology | | To know and understand the systems of technical regulation, standardization, ensuring the uniformity of measurements, legislative and regulatory documents, types and categories of standards. Apply standardization methods, certification schemes, requirements of technical regulations of the TS / EvroES . Analyze compliance with standardization, certification, metrological norms and rules by market entities. To evaluate the economic efficiency of work on interstate and international standardization, certification, metrology | 3 | ER 1  ER2  ER3 |
| PD | | EC | | Inorganic and analytical chemistry | | It studies methods and methods for the synthesis of inorganic substances, skills  descriptions of the properties of substances based on patterns arising from the periodic law and the Periodic system of elements. The ideas about the theoretical foundations of analytical chemistry, about the main types of chemical reactions, about the methods of identification and quantification of substances used in  analytical practice. | 4 | ER2 |
| PD | | EC | | Organic  chemistry | | It studies the structure, properties and methods of synthesis of hydrocarbons and their derivatives. Hydrocarbon derivatives are substances derived from hydrocarbons by substituting one or more hydrogen atoms for other atoms or groups of atoms (called functional groups). | 4 | ER2 |
| **Fundamentals of horticulture and agribusiness** | PD | | EC | | Introduction to the specialty | | It studies the theoretical foundations and modern technologies for the production of fruits and vegetables. The formation of skills in research and experimentation in agriculture, scientific analysis of experimental results, creative application of scientific achievements in agricultural practice. Acquire practical experience in vegetable growing in open and protected ground, vegetable seed systems, production of planting material for fruit and berry crops; management structure of a specialized enterprise for the production, storage and processing of fruits and vegetables. | 3 | ER4  ER10 |
| PD | | EC | | Integrated subject and language learning | | Studying the CLIL technique allows you to realize the main goal of learning a foreign language. The skills of using a foreign language in situations of everyday academic communication, taking into account the linguosiological aspects , master the general linguistic, educational and professional communicative competencies. | 3 | ER1  ER3 |
| PD | | HSC | | Training practice | | Educational practice in general professional disciplines is organized in the laboratories of the departments of the university, educational and experimental farming, as well as in the conditions of advanced agricultural enterprises with the aim of acquiring skills: acquiring primary experience of independent work as a gardener, grower, vegetable grower, obtaining skills in performing basic educational and production tasks , | 1 | ER4  ER5  ER7 |
| CH.D | | EC | | Examination of the quality of fruits and vegetables | | Studies the quality of fruits and vegetables . Fruits and vegetables are essential goods. Most of the population in the winter-spring period consumes vegetables that are laid for storage in the fall or imported. By the beginning of the second quarter, stocks of fruits and vegetables are running out, and by the next harvest there is a seasonal increase in demand. Since the supply of vegetables is currently limited, prices are rising. | 5 | ER8  ER10 |
| CH.D | | EC | | Commodity research of fruits and vegetables and mushrooms | | Mastering the discipline will help students gain knowledge and skills in evaluating fruits and vegetables as a commodity; modern knowledge of market saturation problems will gain additional knowledge. Consideration of issues on the level of qualities, the characteristics of individual groups and species. He studies commodity characterization and quality examination of fresh and processed fruits, vegetables and mushrooms. | 5 | ER8  ER10 |
| PD | | EC | | Fundamentals of agribusiness and entrepreneurship | | Considers the features of the content of entrepreneurship in the agricultural - industrial complex . Introduces the features of state regulation of entrepreneurial activity. Forms the skills of creating and registering your own business, developing constituent documents, agribusiness strategies , business plans. It reveals the mechanism for the formation of business ideas , risk management, assessment and analysis of the effectiveness of entrepreneurial activity in a specific area or industry. | 3 | ER 8  ER11  ER12 |
| PD | | EC | | Organization of production and business planning of greenhouses in the agricultural sector | | Knowledge and understanding of the laws, principles, forms of organization of production, forms of entrepreneurial activity, business plan, leasing, commercial activity. Skills for calculating the effectiveness of the use of progressive forms of organization and material stimulation of labor; rationale for the combination of industries in agricultural enterprises; substantiation of the organization of auxiliary and service industries in agricultural enterprises. | 3 | ER 8  ER11  ER12 |
| CH.D | | EC | | Organization of scientific researching work | | Considers the specifics of science, its goals, functions, types of scientific research; general scientific and special research methods. The formation of knowledge and skills on the biological foundations of fruit and berry crops, bookmarks of fruit stands and fruit production. Skills to draw up a research program; analyze scientific literature on the topic of research. | 4 | ER3  ER10  ER11  ER12 |
| CH.D | | EC | | Organization of scientific research in modern conditions | | Gaining knowledge on the main modern aspects, theoretical principles, technologies, operations, practical methods and techniques for conducting scientific research, mastering the skills of choosing the topic of scientific research, scientific research, analysis, experimenting using information technology based on modern achievements of domestic and foreign scientists. | 4 | ER3  ER10  ER11  ER12 |
| **General biology and plant protection** | PD | | EC | | Taxonomy of agricultural plants | | The section studies the taxonomy of agricultural plants, which deals with the natural classification of plants. Plants with similar characteristics are grouped into groups called species. Which develops a natural classification of the taxonomy of agricultural plants based on the study and identification of taxonomic units, establishes family ties between them in their historical development. | 4 | ER4  ER10 |
| PD | | EC | | Systematics of flowering plants | | He studies the classification of flowering plants, their morphological characteristics. To form students' understanding of the value of flowering plants of knowledge for ideas about the integrity of the scientific picture of the world; to form  fundamental concepts about the cellular structure of living organisms, about the body as a special form (level) of life organization, about biological diversity in nature. In the future, this knowledge is future specialists  can be used both in scientific research and in various economic and educational organizations. | 4 | ER 4  ER 10 |
| PD | | EC | | Protection of fruit crops from pests and diseases | | Studying phytosanitary assessment of crops of fruit and berry crops. Special control measures for various groups of pests. The use of entomophages and microorganisms in regulating the number of pests of fruit and berry crops. | 5 | ER8  ER9 |
|  | PD | | EC | | Crop protection from pests | | Knowledge of fruits and vegetables. Carry out pest and disease surveys; correctly and efficiently use a complex of technical, chemical, biological and other methods of plant protection, taking into account environmental protection, apply technologies for growing fruit crops in solving problems in fruit growing; technologies for laying orchards and fruit plantations; main accounting methods and assessing the incidence of fruit and vegetable plants with diseases and pests. | 5 | ER8  ER9 |
|  | PD | | EC | | Protecting vegetables from pests and diseases | | It studies pests and diseases of vegetable crops. Taxonomy, biology and harmfulness of representatives. Pests of fruit and berry crops. Taxonomy and biology of representatives. Insects: Homoptera (aphids), Semi-winged (shield insects), Coleoptera (leaf beetles, weevils), Lepidoptera (whites, fireworms, moths), Hymenoptera (sawflies), dipterans (real flies). Phytosanitary assessment of vegetable crops. Special control measures for various groups of pests. Integrated vegetable protection. | 5 | ER2  ER3  ER8  ER9 |
|  | PD | | EC | | Protection crops from disease | | Studies plant protection and phytopathology. Plant protection from disease, as the basis of modern agriculture. The history of the development of plant protection, as a science, practical aspects in protecting plants from diseases. Epiphytotics of diseases. Leading scientists phytopathologists. The modern significance of phytopathology. Methods for determining plant diseases. Plant disease as a result of the interaction of the causative agent of the disease, the host plant and a set of environmental factors. Types of relationships between organisms. Factors affecting epiphytotic processes, general patterns of mass plant diseases. |  | ER8  ER9 |
|  | PD | | EC | | Protection of grapes from pests and diseases | | It studies theoretical knowledge about the material nature, causes and development of diseases, biological characteristics of pests and to instill skills and abilities to identify, signal, predict, control measures and prevent the development and spread of diseases and pests. | 4 | ER8  ER9 |
|  | PD | | EC | | Plant protection and quarantine | | Studies plant protection against quarantine pests, diseases and weeds. Identification of the reasons determining the nature of geographical distribution, patterns of formation of flora and fauna of quarantine objects under the influence of natural and anthropogenic factors. Forecasts of quarantine crops. | 4 | ER8  ER9 |
|  | PD | | EC | | Pests and crop diseases | | Knowledge of the patterns of infection, the occurrence of foci of pests and diseases; on the morphology and anatomy of pests and the possession and ability to apply agrotechnical (crop rotation, sowing dates), chemical (use of pesticides) and other (natural enemies of pest phytoseulyus) plant protection measures against them; He will gain skills in identifying pest species by the nature of plant damage, by the type of their development, by the ways of their life activity and distribution; studies of a diseased plant, make short, medium, long-term forecasts of the spread of various diseases. | 5 | ER8  ER6 |
|  | PD | | EC | | Harmful nematodes, ticks and rodents | | It will gain knowledge of morphology, physiology, ecology and the impact of external factors on harmful nematodes, ticks, rodents as a large group of carriers of pathogens and agents of plant damage;  The skills of independent determination of the nature of damage by a given group of pests, to determine the structure of their oral apparatus for the further determination of the name and group of the pesticide of contact or systematic action, the determination of the methods, doses and timing of their use. | 5 | ER8 |
|  | PD | | HSC | | Technological practice I | | The study of experience (in the production of the basic economy) on the practical application of theoretical knowledge (for example, sound selection of varieties, crop rotation schemes and a plan for alternating cultivated crops), accumulation of experience on technological links (organization of fertilizing with fertilizers and organizing labor in this economy to increase labor productivity ) Getting skills during the spring field work (familiarize yourself with the plan of spring sowing). | 3 | ER4  ER6  ER8 |
| **Agricultural mechanization** | PD | | EC | | Machine use in agriculture | | Acquisition of theoretical and practical skills of independent organization of the operation of the machine and tractor fleet, assessment of the use of ICC on the basis of technical, operational and economic indicators; the student acquires the competence of knowledge of technology and the relevant ICC; planning and the ability to collaborate in collective work and collegial decision-making for the rational use of machines and assemblies in a specific horticulture. | 4 | ER9 |
| PD | | EC | | Crop mechanization | | Studying the theoretical and practical foundations of expanding the use and increasing the efficiency of machinery and equipment in the garden, on vegetable plantations, in greenhouse production and in viticulture; Acquisition of professional competences of individual and team work in mastering the principles of operation of seedling machines and vegetable seeders, cultivators, sprayers and dusters, and other devices. | 4 | ER9  ER 12 |
| **Soil Science and Agrochemistry** | PD | | HSC | | Soil science | | Discipline forms knowledge about soil, its structure, composition, properties, soil cultivation processes, development and its functioning, patterns of geographical distribution, relationships with the external environment, ways and methods of rational use. | 5 | ER 5  ER6  ER8 |
| CH.D | | HSC | | Agrochemistry | | He studies the theoretical foundations of the chemization of agriculture; plant nutrition issues, methods of its regulation; main properties of organic and mineral fertilizers; agrochemical properties of the main soil types of Kazakhstan. Gaining skills in the proper use of fertilizers and increasing fertility, taking into account soil and climatic conditions and biological characteristics of crops, practical skills in performing agrochemical analyzes. | 5 | ER 6  ER 8  ER 10 |
| **Agricultural direction module** | PD | | HSC | | Vegetable growing  1 | | Implementation of production processes in field cultivation. Effectively use agricultural machinery, chemical, biological and agrotechnical plant protection measures. Skilled in the production of energy-saving technologies that increase soil fertility and protect the environment. | 5 | ER4  ER 8  ER10 |
| PD | | HSC | | Vegetable growing 2 | | It studies species and varietal forms of field crops, biology features, environmental requirements and methods of growing the highest quality crops. Skills of technically advanced and cost-effective cultivation of maximum crops of agricultural products with high quality and low costs. | 5 | ER4  ER 8  ER10 |
| PD | | HSC | | Breeding and seed production of agricultural crops | | It studies the theoretical foundations and advanced modern methods and technologies of breeding and seed production of agricultural crops, the basics of seed certification. The skills of conducting the breeding process, selection, creation and study of source material for selection are developing; organization of primary seed production of a variety; modern technologies for refinement of seed material and varietal control. | 5 | ER 4  ER 10 |
| CH.D | | HSC | | Agriculture | | Knowledge and understanding of the laws of scientific farming; characteristics and features of their use in agricultural production. Objects and methods of research in agriculture. The formation of skills for the rational use of arable land, taking into account fertility, regional landscapes and landscape conditions in order to obtain high yields of agricultural products - grain, root crops, hay, etc. | 4 | ER 5  ER 6 |
| CH.D | | HSC | | Internship practice I | | Gathering information about the activities of the farm educational and professional activities of the agronomist .. Inoculation of skills to master the practical foundations of the future profession; independent analysis, structuring, systematization of knowledge and well-reasoned presentation to colleagues in the workshop of their views and beliefs; development of public speaking skills and presentation of reporting documentation of the practice base of the farm. | 6 | ER 5  ER 12 |
| **Technology for growing fruit and vegetable crops** | CH.D | | EC | | Fruit growing | | The student will receive knowledge about - pome seeds, stone fruits, grapes and other fruit; morphology and biology of their growth and development; varietal technology for their cultivation and breeding in the nursery, taking into account local natural conditions; crown formation skills by applying various types of trimming; skills in ways to control pests and diseases. | 4 | ER4  ER7  ER9 |
| CH.D | | EC | | Gardening activities | | The formation of knowledge and skills in the development of modern gardening is a morphology, biology of fruit and berries and garden crops. The development of ways to obtain high quality yields of pome seeds, stone fruits, berries, decorative seedlings, flowers, and medicinal plants; products of their storage and processing. Acquisition of skills to systematize and generalize the results of scientific research; making recommendations to production. | 4 | ER8  ER11 |
| CH.D | | EC | | Vegetable growing | | Acquisition of competence of a reasonable choice of methods of cultivation (seedlings or seedlings), sowing (spring, autumn, winter, etc.), planting (timing and place of planting seedlings, etc.) of conducting scientific research of vegetable crops in open and protected ground (to for example, the choice of agricultural technology) taking into account the regional natural resources of the south of the republic. | 5 | ER 4  ER 10 |
| CH.D | | EC | | Growing vegetables and potatoes | | Acquisition of skills in conducting vegetable and potato farming on a scientific basis, i.e. make an informed choice of methods of agricultural operations, the choice of varieties (by maturity, resistance to external factors or diseases and pests) and care measures (cultivation, top dressing with macro and micronutrient fertilizers, methods of controlling pests and diseases; crop rotation and crop rotation schemes . | 5 | ER6  ER 8  ER 10 |
| CH.D | | EC | | Advanced technologies in fruit growing | | It studies the main advantages of intensive plantings of fruit crops. Selection achievements in the field of fruit growing. Weak and early-growing gardens; overcoming post-planting stress in fruit crops. The use of mechanization and high-tech laboratory equipment and biotechnological methods (cryopreservation in liquid nitrogen of seed pollen and stone cuttings). | 4 | ER 8  ER9 |
| CH.D | | EC | | Innovative technologies in gardening | | Studying the formation of a complex of knowledge about the organizational, scientific and methodological foundations of cultivating fruit and ornamental crops. To form the practical foundations of modern intensive, environmentally friendly, resource-saving technologies for the production of fruit and ornamental crops; to assess the scientific and technical state of the production of horticultural products based on data collection and analysis. | 4 | ER 7  ER8 |
| CH.D | | EC | | Advanced technologies in vegetable growing | | Competencies in the field of selection achievements in the vegetable growing of open and protected soil; overcoming planting stress in vegetables: automation of production processes and climate control for plant protection in industrial greenhouses, as well as the application of biotechnological methods in seed production, storage and processing of vegetables and potatoes. | 4 | ER 4  ER8 |
| CH.D | | EC | | Vegetable farming with the basics of intensification | | It studies the morphology and agrotechnical needs (for heat, for light, etc., in the fields and greenhouses) of the main vegetable crops. It studies the technological features of their production in the south of the republic on the basis of the use of modern innovative technologies and intensification in aquaculture. | 4 | ER 4  ER8  ER 11  ER 12 |
|  | PD | | EC | | Greenhouse production of vegetables | | The study of this discipline will allow you to master the skills of greenhouse production, get acquainted with the device of the main types of protected soil, and master the methods of year - round vegetable growing. Importance of producing off-season and early vegetables for year-round supply of fresh vegetables to the population. The nutritional and dietary value of vegetables. Methods of production of off-season and early vegetables (seedlings and seedlings , the use of protected soil). | 5 | ER4  ER8  ER10  ER11 |
| PD | | EC | | Production of greenhouse vegetables and berries | | Formation knowledge and skills in biology and technology of cultivation of vegetable and fruit plants; the study of the biological characteristics of vegetable and berry crops, technological methods of their cultivation; the latest production technologies using drip irrigation and fertigation . . | 5 | ER4  ER8  ER10  ER11 |
| PD | | EC | | Melon growing and viticulture | | To know the variety of melons and viticulture, methods for producing melon and vine growing products, the current state of the industry and the prospects for its development, requirements, developing intensive technologies for producing planting material and products for modern melon and viticulture varieties and hybrids . Gaining skills in the application of intensive technologies in the cultivation of melon growing and viticulture. | 4 | ER 4  ER7  ER 11 |
| PD | | EC | | Intensive melon growing and viticulture | | Studying product quality and technological aspects of grape production. Integrated mechanization in soil preparation, planting, vineyard care and harvesting. The study of this discipline will allow students to master the basics of advanced technologies for growing melons and grapes and associate them with improving the quality of products. | 4 | ER 4  ER7  ER 9 |
| PD | | HSC | | Internship practice ІІ | | Considers the technology, economy, organization and management of agricultural production, the organization of the agronomic service and the working methods of the chief agronomist, agronomists of industries and production units of the economy. P riobretenie practical skills using advanced technology in fruit and vegetable production, and methods for obtaining a high yield. gaining experience of independent work in a production environment, generalization and analysis of practical work , their statistical processing; | 5 | ER 8  ER 10  ER 11 |
| **Storage and processing of agricultural products** | PD | | HSC | | Technology for storage and processing of crop products | | To learn to acquire skills in developing a set of measures for the post-harvest refinement of the obtained crop products and the organization of its cost-effective storage , the scientific principles of storage of crop products , the processes that occur in the products during storage , the characteristics and properties of raw materials and finished products . To acquire skills in developing a set of measures for the post-harvest refinement of the crop products obtained and the organization of its cost-effective storage . | 6 | ER 8  ER11  ER9 |
| CH.D | | EC | | Technology for storage and processing of fruit and vine products | | Studying the application of technologies for the production of fruits and grapes for storage and processing. The formation of future theoretical knowledge and practical skills in fruit growing, vegetable growing and viticulture for the development, substantiation and decision-making in this area. | 4 | ER 8  ER11  ER9 |
| CH.D | | EC | | Technology production of crop products / | | He is studying the biological fundamentals of crop production , the relation of vegetable plants to the complex of external conditions, technological methods of cultivation: soil preparation , seeds and sowing, sowing norms, methods of propagation of vegetable plants, nutritional areas, general care methods, crop rotation, greenhouse growing , technology vegetable production in the open field , transportation, cleaning, bagging, storage, seeds for planting holiday. | 4 | ER 8  ER6  ER11 |
| CH.D | | EC | | Technology for storage and processing of vegetables and potatoes | | The study of fruits and vegetables in the rational nutrition of man. The norms of consumption of fruits and vegetables and their implementation. The role of the sectors of storage and processing of fruits and vegetables in providing the population with this type of food. | 4 | ER 8  ER11 |
| CH.D | | EC | | Technology of vegetable production | | The study of sowing, planting and care of planting vegetables  Know the agrotechnical methods of sowing, planting and caring for plants in compliance with safety rules (required - watering, fertilizing, cultivating, removing weeds in crops and planting, in accordance with the profession - other methods, for example, pruning, picking seedlings of vegetable plants, etc.) | 4 | ER 8  ER9  ER12 |
| Module acquiring new professional competencies | PD | | EC | | Minor program | | Additional educational **program Minor**( **Minor**) - a set of disciplines and (or) modules and other types of educational work, defined by the student for study in order to form additional competencies | 12 | ER8  ER 11  ER 12 |
| Final Certification Module | CH.D | | HSC | | Undergraduate practice | | He will gain knowledge in the formation of general professional and professional competencies necessary for the development of agricultural cultivation technologies, the acquisition of industrial experience of independent work in the conditions of professional agronomic activity, and the updating of knowledge and skills in the field of agriculture in real conditions of agronomic activity. | 8 | ER 3  ER 6  ER 11  ER 12 |
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**AGREEMENT SHEET**

according to the Educational program 6В0814 0 - " Fruit and vegetable growing "

Director of DAV \_\_\_\_\_\_\_\_\_\_\_\_\_\_

signature

Director of NRU \_\_\_\_\_\_\_\_\_\_\_\_\_\_

signature

Director of DNiP \_\_\_\_\_\_\_\_\_\_\_\_\_\_

signature

*Annex 1*

**REVIEW**

on a modular educational program in the specialty 6B081 4 0- "Fruit and vegetable growing" , developed by a team of teachers of the department "Vegetable growing and animal husbandry" of the Agrarian faculty of SKSU

them. M. Auezova

The educational program in the specialty 6B08140 - "Fruit and vegetable growing" is compiled in accordance with the provisions and requirements of today in the labor market of specialists of this profile. Demand for specialists in fruit and vegetable growers in the labor market in the south of the republic has been increasing in recent years. In connection with the government policy activities agricultural businesses: fruit-growing and vegetable-growing farms and other structures of the direction in addition to providing the local population the fruits, vegetables, grapes, etc. also focus on export. When compiling the program, employers' requests were taken as a basis in connection with the increased need for agronomists of this profile. There is an urgent need for graduates of this specialization, who are able to assess the prospects for the development of the economy in rapidly changing market conditions, draw up technological maps for growing modern intensive orchards, vineyards and nurseries, as well as organize vegetable and field work in greenhouses of various designs and projects; to calculate the farm's need for seeds, fertilizers, pesticides, fuels and lubricants, agricultural machinery, implements and equipment, labor resources, to evaluate the quality of work performed.

The main goal of the program is as follows:

Training of specialists who possess theoretical and practical knowledge in the field of horticulture and vegetable growing, own methods and tools in the horticultural field of agronomy, are able to apply the acquired knowledge, evaluate and analyze the current state of agricultural development, and are also able to formulate and make effective solutions to production problems.

The purpose of the program is the training of fruit and vegetable growing in the educational program of the specialty "Fruit and vegetable growing". 6V08140 educational program - " Fruit and vegetable growing" suggests a clear direction of professional activity of graduates on the rise in agricultural production, namely fruit and vegetable growing sector south of the country and in the whole of the domestic economy our country.

The development of this program will ensure the formation of the future highly qualified specialist-agronomist of the fruit grower and vegetable grower with valuable economic, organizational and personal general cultural qualities.

Programs voiced with national priority and with strategies of development of the university, directs to the practical using of knowledge, on self improvement and getting education during the hole educating cycle on selected specialty.

About education program in the specialty 6В08140 "Fruit and vegetable growing", can be recommended for use in the educational process of higher educational institutions.

Director of "Company", "Kazagronom": Orazova Sh.N.

Appendix 2

EXPERT CONCLUSION

to the educational program of higher education in the direction of preparation 6B081 4 0- "Fruit and vegetable growing" qualification "Bachelor", ", developed by a team of teachers of the department "Vegetable growing and animal husbandry" of the Agrarian faculty of South Kazakhstan State University named after M. Auezova .

The peer-reviewed educational program (hereinafter EP) in the direction of preparation 6В08140 - “Fruit and vegetable growing” is a document system developed on the basis of SCES “Growing vegetables and potatoes”, “Gardening activities”, “Production of greenhouse vegetables and berries” and “ Viticulture ” ( undergraduate level ), approved by order of the Ministry of Education and Science of the Republic of Kazakhstan.

The concept of this educational program is a system of documents and concepts, defining the purpose of the educational program, agreed with the mission of the University named after M. Auezov SKSU aimed at preparing the intellectual elite of country, and also includes a description of the professional work of the bachelor fruit growers and vegetable growers. Here the competencies of the graduate are clearly defined, formed as a result of mastering the undergraduate program “Fruit and vegetable growing”. Documents are given that regulate the content and organization of the educational process during the implementation of the undergraduate program; it provides for the actual resource support of the undergraduate program; characterization of the university environment, ensuring the development of general cultural competencies and personal qualities of graduates;

Regulatory and methodological documents and materials to ensure the quality of training of students including itself: curriculum, working programs of training courses, subjects, disciplines (modules) and other materials to ensure the quality of training of students, as well as programs of educational and pre-diploma practice, calendar curriculum and teaching materials that ensure the implementation of appropriate educational technology. The strategic goal of the EP is to train highly qualified specialists who are able to manage research and development processes and innovative activities in organizations of any legal form. The education program meets the basic requirements of the standard. State final certification includes the preparation and defense of the bachelor.

The calendar training schedule is drawn up in accordance with the requirements. Disciplines of the curriculum under peer-reviewed educational program form the entire necessary list of general cultural, general professional and professional competencies provided by the State Educational Standard and professional standards. Among the competitive advantages of the program, it should be noted that quite experienced faculty and teaching staff are involved in its implementation, as well as leading practitioners of agricultural production. One of the advantages is taking into account the requirements of employers in the formation of the disciplines of the compulsory part, which in their content allow ensuring the competence of the graduate. The quality of the content of the curriculum is not in doubt.

Academic plan

Disciplines except the training plan of the educational program "Fruit and vegetable growing" affect the relevant for today economically problem of fruit and vegetable growing sector of agro-industrial complex south of the country.

The integrity and consistency of structure of academic plan and educational program saved and consequently. Training programs of disciplines formulated as continuously and at a sufficiently high methodological level. The content of the disciplines allows you to achieve the learning outcomes provided by the program and corresponds to the competency model of the graduate. Educational work of students in the EP on the direction of training 6V08140 - "Fruit and vegetable growing", organized in the course of preparation of bachelors in the following forms: lectures, consultations, seminars, workshops, laboratory work, examinations, colloquiums, independent work, research work, practice . In the course of training of the process and peer reviewed the first EP is expected the use of active and interactive forms of training, including discussions, business games, analysis of case studies, training, project-based learning, work in small groups and others. Teaching practice involves the study of specific topical issues and problems on training bases to the further performance of m presentation and report at the section meeting of scientific and methodical faculty, university student conferences in SKSU named after M. Auezov. The content of the undergraduate practice program testifies to its ability to form students' practical skills. . The basis for under graduation practices are AIC "Kaynarbulak" LLP "Kazagronom" LLP " R.S. Agro Group Holding”, “Red waterfall agricultural practical station”, housing and communal services“ SMG GREEN HAUSE PROFIT”, housing and communal services“ Vegetable protecting and quarantine scientific research institute, Shymken state dendropark, District inspectors in variety testing, LLP "Amankeldi" Research work includes research activities and the preparation of final qualification work (bachelor's diploma work). In the course of the research work, it is proposed to use such forms as participation in the scientific seminar of the department with the preparation of their own presentations; reports on the results of scientific research at seminars, conferences, symposiums and scientific schools, publication of materials in relevant final collections and works; participation in the preparation of competitive applications for research, scientific reports; preparation of publications in scientific journals, including those recommended by the Ministry of Education and Science of the Republic of Kazakhstan for publishing the results of diploma studies; search for relevant information on the subject of scientific research; participation in programs of international and intra-Kazakhstan mobility of bachelors; conducting both independent research and joint research with the supervisor.

In accordance with the requirements of the State Educational Standards of Education for the certification of students for compliance with their personal achievements by the phased requirements of the relevant EP, funds have been created for evaluating funds for monitoring performance and intermediate certification. The funds consist of control questions and typical tasks for practical exercises, tests, call-offs, tests and exams; to increase the objectivity of assessing the level of achievement of the student during the development of this program, computer testing programs will be widely used; approximate topics of essays, etc., as well as other forms of control, allowing to assess the degree of formation of students' competencies. The educational program presented for consideration is fully consistent with the declared level of preparation of the bachelor. The planned disciplines form a rather high level of competencies and meet the State Educational Standards of Education of the RK. Provision of EP with scientific and pedagogical staff meets the requirements of the standards of higher education in the Republic of Kazakhstan. Material and technical support of the educational process in the field of preparation "Fruit and vegetable growing" fully meets the requirements of state standards of the Republic of Kazakhstan.

The developed EP has a high level of security with educational and methodical documentation and materials. The programs of all declared disciplines, practices (SRW) and final state certification are presented. The quality of the peer-reviewed EP is not in doubt. The program "Fruit and vegetable growing" can be used to prepare students for the qualification "Bachelor" in the direction of preparation 6B08140 - "Fruit and vegetable growing"

Chairman of the expert commission:

Dean of the Agrarian Faculty,

Candidate of Biological Sciences: A.K. Zhylkybaev

Members of the expert commission:

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Associate Professor of the Department "VR and VU" N.T. Manabaev

2. Candidate of Veterinary Sciences, Associate Professor

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