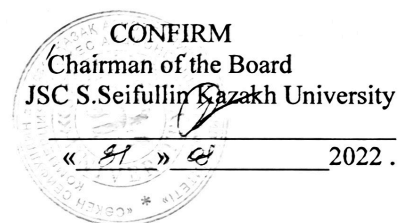


Ministry of Agriculture of the Republic of Kazakhstan
S. Seifullin Kazakh Agrotechnical University

Reviewed
at the meeting of the
Academic Council
Minute № 19
« 31 » 08 2022



EDUCATIONAL PROGRAM
«Landscape design»

Code and classification of education field:

6B08 Agriculture and bioresources

Code and classification of training direction:

6B083 Forestry

Code in the International standard classification of education:

0821

Degree: bachelor of agriculture in the educational program

«Landscape design»

Duration of study: 4 years

Astana, 2022

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1 Passport of the educational program

1.1 Purpose of the educational programme:

Modular educational program "Landscape design and landscaping" was created on the basis of employers' request in connection with the increased need for specialists-greeners capable of organizing and carrying out the work on the design of landscape architecture, reconstruction of green spaces and parks.

The modular educational program will allow to receive profound theoretical knowledge and practical skills on development of projects of landscape gardening, performance of gardening of city territories, selection of base assortment of plants, planting and care of them.

The aim of the program is to prepare a competitive specialist, ready for production activity in the system of landscape design, operation and reconstruction of landscape gardens, capable of practical implementation of knowledge and further professional self-improvement and creative development.

2 General description of the educational programme:

To implement the state strategy "Kazakhstan-2050", as well as to solve environmental problems, which is given special attention in the framework of special programs "Zhasyl Damu", "Zhasyl Spruce", etc. it is necessary to train highly qualified specialists, ready to carry out a set of measures on landscaping and improvement of populated areas, landscape design, cultivation of decorative planting material, which is conditioned by the strengthening of urbanization, anthropogenic impact on the environment and forest-park ecosystem.

To solve the problems of landscaping and landscape design of cities and settlements it is necessary to give students knowledge on landscape design as the basis of organization, preservation and restoration of modern and historical landscapes, at the same time providing rehabilitation and improvement of human society environment.

Competitive advantages of this EP are the highly qualified teaching staff with practical skills in the field of landscape architecture and landscaping, as well as teaching in a foreign language and combining the methods of domestic and foreign practice, training in computer classes, laboratories with the latest equipment and forest nursery on the campus of the university.

The students will have an opportunity to get practical skills and implement the project of landscaping in the green areas of Astana-Zelenstroy JSC, Zhasyl zher LLP and others.

Stakeholders of the EP are enterprises in the field of forestry and landscaping: the Council of Legal Entities "Association of Forestry and Wood Processing Organizations of the Republic of Kazakhstan "Zhasyl Orman", JSC "Astana-Zelenstroy", private gardening enterprises.

3 Competence model (portrait) of the graduate

3.1 Professional fields of activity:

The sphere of professional activity of graduates of the educational program "Landscape design and gardening" is landscaping and improvement of populated areas, landscape design, cultivation of ornamental plants, commercial forestry. Objects of professional activity of graduates are: the gardening organisations, the wood inventory and the design enterprises, wood and decorative nurseries.

The subjects of professional activity are landscaping and beautification of populated areas, landscaping of urban areas, areas of cottage buildings, recreational forest use.

3.2 Types of professional activity:

Graduates in the 6B083-"Forestry" direction under the educational program "Landscape design and gardening" can perform the following types of professional activities:

- Industrial and technological (landscaping);
- Organizational and administrative (reconstruction of parks and squares);
- design (creation of landscape architecture projects);

3.3 General educational competencies:

- argue his own assessment of everything happening in the social and industrial spheres and use methods and techniques of historical description to analyze the causes and consequences of the events of modern history of Kazakhstan;

- evaluate situations in various spheres of interpersonal, social and professional communication taking into account the basic knowledge of sociology, culturology and psychology;

- demonstrate personal and professional competitiveness;
- to apply in practice the knowledge in the field of social and humanitarian sciences, which is recognized worldwide, and to generalize the results of the study;
- enter into communication in oral and written forms in Kazakh, Russian and foreign languages to solve the problems of interpersonal, intercultural and industrial (professional) communication;
- use various types of information and communication technologies in personal activities.
- know the methods of scientific research and academic writing and apply them in forestry;
 - apply knowledge and understanding of facts, phenomena, theories and complex relationships between them in forestry;
 - understand the importance of the principles and culture of academic integrity.

3.4 Core competencies:

- Apply their knowledge, understanding and problem-solving skills to the new environment, in a broader interdisciplinary context, at the professional level;
- work with other specialists in joint projects and activities;
- Demonstrate teamwork, negotiation and organizational skills;
- to positively perceive innovation and change;
- To have an understanding of the nature of the main physiological processes of green plant, the mechanisms of regulation and the basic regularities of the relationship between plants and the environment;
- Possess methods of taxation, monitoring of the condition and inventory of green spaces;
- Ability to carry out measurements in the field using geodetic instruments, description of borders and binding of forest facilities in the field;
- Knowledge of forest forming species of woody plants introduced in Kazakhstan;
- Possess methods of monitoring and assessment of the technical condition of landscaping facilities
- to use in practice methods and means of protection of green spaces from pests and diseases, taking into account environmental protection, pest and disease diagnostics skills;

3.5 Professional competencies:

- know the morphology and biology of ornamental woody shrubs and flower plants;
- knowledge of methods and technology of planting material cultivation, methods of creating forest crops, greenery plantations;
- to know varieties of modern styles and laws of plant compositions;
- organize, carry out and monitor landscaping and landscaping;
- organize and carry out works to control pests and diseases of nurseries, forest crops and green spaces;
- work in basic and special computer programs;
- to perform works on designing, construction and operation of landscape architecture objects, reconstruction of green spaces and parks;
- to be able to make selection of wood-shrubby and flower plants taking into account natural zonality, growth conditions, decorative properties;
- to know the compositional regularities of formation of the subject spatial environment;
- to know the concepts and technologies of practical work, understanding the specifics of the designer of this profile;
- to be able to correctly convey the volumetric form of all objects of real reality from life;
- to be able to apply different types of stylization in different ways by memory, by performance.

4 Base passage of professional practices:

Professional practice - 21 credits, including: educational practice 1 (botany and dendrology) - 4 credits; educational practice 2 (forestry and nurseries) - 4 credits; production practice - 10 credits, undergraduate practice - 3 credits.

Students will be trained in the disciplines of "Botany" and "Dendrology" on the basis of JSC "Astana-Zelenstroy", RSE "Zhasyl Aimak" and in the urban parks and squares. Training practice in the disciplines of "Forestry" and "Forest nurseries" will be held on the basis of Sandyktau training and production forestry and SA forestry "Akkol" Akmola region. Production and undergraduate practice will be held at the following enterprises: State institutions for the protection of forests and wildlife, regional territorial inspections, enterprises: Astana-Zelenstroy JSC, State Enterprise Zhasyl Aimak, JSC Astana-Ormany, State Enterprise Republican Forest Breeding Center, LLP "KazRIFA", State National Natural Parks, nature reserves, reserves and other

protected areas of the Republic of Kazakhstan, natural resources management and regulation of natural resources, public utilities responsible for landscaping and landscaping of settlements and other state institutions, as well as private companies engaged in activities in the field of forestry and landscaping.

5 Structure of the educational program

№	Name of cycles and disciplines	Total labor intensity	
		in academic hours	in academic credits
1	2	3	4
1	The cycle of General disciplines (GED)	1680	56
	Required component	1530	51
	Modern history of Kazakhstan	150	5
	Philosophy	150	5
	Foreign language	300	10
1)	Kazakh (Russian) language	300	10
	Information and communication technology (English)	150	5
	Module of socio-political knowledge (sociology, political science, cultural studies, psychology)	240	8
	Physical culture	240	8
2)	High school component	150	5
	Ecology and basics of life safety	150	5
2	Cycle of basic disciplines (BD)	3360	112
1)	High school component	1530	51
	Professionally-oriented foreign language	120	4
	Professional Kazakh (Russian) language	90	3
	Forest botany and physiology of woody plants	120	4
	Educational practice in forest botany	60	2
	Dendrology	150	5
	Forestry with the basics of recreational use	180	6

	Educational practice in dendrology	60	2
	Educational practice in forestry and forest nurseries	120	4
	Forest nursery business	180	6
	Forest cultures	150	5
	Biometrics in forestry	150	5
	Forest management with the basics of forest inventory	150	5
2)	Optional component	1830	61
	Forest soil science	120	4
	Meteorology	120	4
	Engineering landscaping	120	4
	Mechanization of landscaping	150	5
	Architectural graphics and basics of composition	120	4
	Forest science and forest resource studies	180	6
	Forest management and protection	120	4
	Occupational health and safety in forestry	120	4
	Selection of woody and flower plants	150	5
	Protection of wood and flower plants	150	5
	Geographic information systems and remote sensing forest	150	5
	Fundamentals of entrepreneurial activities in forestry	150	5
	Forest economics	150	5
3	The cycle of majors (MD)	1800	60
1)	High school component	1800	60
	Decorative dendrology	150	5
	Landscaping of populated areas and	180	6

	site improvement		
	Technology and organization of green Constructions	150	5
	Landscape design	150	5
	Floriculture and decorative gardening	180	6
	Plant compositions and floristry	150	5
	Botanical gardens and greenhouse business	180	6
	Lawn cultivation	120	4
	Basics of garden art	150	5
	Production practice	300	10
	Undergraduate practice	90	3
4	Additional types of training (Feb)		
5	Final attestation	360	12
1)	Writing and defending a thesis (project) or preparing and passing a comprehensive exam	360	12
	Subtotal	7200	240

