Kostanay regional
university
named after
A.Baitursynov

BAITURSYNOV
UNIVERSITY

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Chairman of the Management
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"22" 04 2023

Doctoral Program Development
KRU named after A.Baitursynov for 2023-2027

Kostanay, 2023

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The program of development of doctoral studies of A.Baitursynov KRU for 2023-2027 - Kostanay: A.Baitursynov KRU, 2023. – 8 p.

Approved by the Academic Council of the University, Protocol №. 2 of 25.01. 2023

Information about doctoral studies at Kostanai Regional University named after A. Baitursynov and further network cooperation within the project

General Information. The total number of doctoral programs in the university is 15, including those related to or having a relationship with agriculture 5. The total number of doctoral students as of June 1, 2022 is 43 people (table 1, 2).

Table 1 - List of groups of educational programs

№	Name of the group of educational programs
1	D053 History and Archaeology
2	D060 Philology
3	D059 Foreign Philology
4	D067 Journalism and Reporting
5	D070 Economics
6	D072 Management and Administration
7	D078 Law
8	D080 Biology
9	D094 Information Technology
10	D099 Electrical Engineering and Power Engineering
11	D103 Mechanics and metalwork
12	D131 Crop production
13	D132 Livestock breeding
14	D136 Vehicles
15	D138 Veterinary

Table2 – Contingent (recruitment) of doctoral students for the period from 2015 to 2022

Years	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Quantity	4	4	4	23	39	4	18	21	8

We tried to reflect this in our small analysis, which we divided into two aspects – a view from the position of PhD student and an opposite view from the position of a scientific advisor of PhD student (table 3,4).

Table 3 – SWOT analysis from the position of PhD student

Opportunities	Threats
• immersion in agrarian scientific	• choosingofunsuccessfultopic

community • publications through HEI • participation in HEI's scientific projects (regional, international) • combining postgraduate studies with employment at HEI (positions of laboratory assistant, engineer, assistant) • training on a basis of budgetary funding. Payment of scholarship. • When concluding an agreement with the Republic – there are obligations on employment after completion of postgraduate studies	• self-removal of a scientific supervisor (or a weak scientific supervisor) • lack of funding for research projects • unsuccessful scientific experiments (production experiments) • lack of scientific publications in rated journals (WoS/Scopus) for dissertation defense • incompletion of PhD student's individual plan

There are very good prospects and opportunities for a full-time doctoral student in the PhD program, which can be divided into material and organisational aspects. On the material side, universities try to support the PhD student and, in addition to receiving a scholarship, he or she gets a job as an assistant or a laboratory assistant. With the conclusion of an agreement with the relevant Ministry of the Republic of Kazakhstan, doctoral students have a guarantee of employment in the university. Doctoral students of our university are members of research teams for the implementation of research projects on initiative topics, participate in interregional and international scientific and educational projects.

There is a periodical scientific journal "3i: – intellect, idea, innovation" in Kostanay regional university named after A.Baitursynov where students have an opportunity to publish their articles.

1. Untimely defense is one of the main problems of training in doctoral studies. As the analysis shows, most doctoral students do not defend their dissertations immediately, but 1-3 years after graduating from doctoral studies. The reason is the lack of articles in journals with a non-zero factor or incompleteness of dissertation research.

2. At present, the low proportion of research advisors of doctoral students in the universities of Kazakhstan, which meets the requirements of the MES of the Republic of Kazakhstan, which also affects the quality of training. In accordance with the GOSR scientific supervision is carried out by the teacher who is the author:

– in the areas of training 8D05 «Natural Sciences, Mathematics and Statistics», 8D06 «Information and Communication Technologies», 8D07 «Engineering, Manufacturing and Construction», 8D08 «Agriculture and Bioresources», 8D09 «Veterinary», 8D10 «Health and Social Services (Medicine)» 2 articles in international peer-reviewed scientific journals, which are in the 1st, 2nd, 3rd quartile according to JCR (JSR) in Web of Science Core Collection (Web of Science Core Collection) or have a CiteScore score of at least 35, or Hirsch index of 2 or more;

– for other areas of training, who is the author of 5 scientific articles in the publications on the profile, which are included in the list of editions, recommended for publication of the results of scientific activity and 1 scientific article in an international peer-reviewed scientific journal, having the impact factor according to JCR (JCR) or indexed in one of the databases Science Citation Index Expanded, Social Science Citation Index or Arts and Humanities Citation Index in Web of Science Core Collection (Web of Science Core Collection) or having the CiteScore (SiteScore) percentile index not less than 35 in the Scopus database (Scopus);

– in the field of training 8D12 «National Security and Military Affairs» at least 7 articles in journals included in the list of publications recommended for publication of the results of scientific activity.

Table 4 – SWOT analysis from the position of a scientific supervisor

Opportunities	Threats
• training on a state educational order, receiving a sufficiently high stipend; • conducting scientific research in the laboratories of research centres; • in-depth study and research of the agro-systems of the region; • significant publications in the field of study; • participation in research projects; • combining doctoral studies with work at the university, research centres and laboratories; • scientific internship in national research centres, in partner universities, both domestic and foreign.	• lack of work experience with PhD students (inexperience on training of candidates of sciences) • conservatism and stereotypes of a scientific supervisor • lack of rated scientific publications and results of scientific activities • lack of funding for scientific projects • unsuccessful scientific experiments (production experiments) • incompletion of PhD student's individual plan • expulsion of PhD student from a doctoralprogram • lack of timely access to the defence due to the absence of articles in journals with a non-zero factor or incomplete dissertation research; • low share of participation in research projects; • low proportion of doctoral students' scientific advisors who meet the requirements of the Ministry of Education and Science of the Republic of Kazakhstan.

The analysis reveals that the threats are similar for both doctoral students and supervisors. In order to prevent the threats, a teamwork of a doctoral student and a supervisor is necessary.

The experience of the supervisor in preparing doctoral students is important and its absence can affect the timeliness of the doctoral student's defence. There are also times when the supervisor is not sufficiently active in research and publication activities, limited financial resources, failures in experiments on the topic of research work slow down the process of completing the doctoral thesis.

Ways to solve the problem through networking.

1. According to the GSO the scientific management of doctoral students for the degree of Doctor of Philosophy (PhD) is carried out by advisors of at least 2 people, one of which is a scientist from a foreign university (except for the group of training areas «National Security and Military Affairs»). In this regard, within the framework of network cooperation we propose to begin work on attracting scientists of partner universities, which meet the specified requirements, as scientific advisors.

2.This, accordingly, will lead to the intensification of work on the organization of scientific internships for doctoral students and improve the quality of training. It is necessary to develop a plan for partner universities to organize internships in accordance with the direction of training.

3. In order to increase the publication activity to organize joint work (consultations, training seminars, etc.).) for doctoral students and supervisors to publish articles in international peer-reviewed scientific journal with an impact factor according to JCR (JSR) or indexed in one of the databases Science Citation Index Expanded, Social Science Citation Index or Arts and Humanities Citation Index in Web of Science Core Collection (Web of Science Core Collection) or having in the database Scopus percentile score according to CiteScore (SiteScore). In order to increase the activity of doctoral students it is necessary to hold meetings, round tables with scientists, professors and consultants of partner universities with doctoral student.

The number of publications in the Scopus and Web of Science databases is shown in Table 5.

Table 5 – The number of publications in the Scopus and Web of Science databases

Publications for the entire Scopus period – 279	Number of journals in Scopus in 3 years, with and without % (percentile)			Publications for the whole period WoS - 149	Number of journals in WoS over 3 years, with and without Q		
Publications by years Scopus - 96	Number of journals	Number of journals with %	Number of journals without %	Publications by year WoS - 51	Number of magazines	Number of magazines	Number of journals without Q

2021	26	19	19	0	2021	15	12	12	0
2020	27	26	25	1	2020	16	16	11	5
2019	43	30	28	2	2019	20	18	13	5
Total:	96	75	72	3	Total:	51	46	36	10
	147								
		121							
			108						
				13					

Let us compare the growth of articles in the Scopus database over the last three years:

In the period 2019-2020 there is a decline in publication activity by 16.6% in 2020;

Between 2020-2021 there is a decline in publication activity of 1.04% in 2021.

A comparative analysis of the growth of articles in the Web of Science (WoS) database over the past three years (see Table 2):

Between 2019 and 2020 there is a decline in publication activity of 7.8% in 2020;

Between 2020-2021 there is a decline in publication activity of 1.9% in 2021.

From the table of publication activity, we can see that from 2019 to 2021, 96 articles in 75 journals have been published in Scopus database of which 72 journals have percentile % from 1 to 100 and 3 journals have no percentile %.

According to the WoS database, the number of publications for the three-year period is 51 articles in 46 journals, 36 of them have quartile Q 1-4 and 10 journals have no quartile Q.

This means that a total of 147 papers were published in 121 journals in a three year period, of which 108 are significant journals and 13 journals do not have Q-quartile.

One of the main reasons for the decline in publication activity in the period 2019-2021 should be recognized as the Covid pandemic and the associated limitations of normal life.

In modern conditions, in the field of higher education, the system of educational training programs with equal opportunities for students, including doctoral students, is gaining great popularity. To improve the efficiency of the learning process at the university, various pedagogical and methodological technologies based on the formation of students' competencies are constantly being tested and implemented. The main reason for the growing interest in this approach is that education in higher educational institutions does not always meet the needs of a person and society in terms of professional flexibility and the requirements of the modern rapidly changing labor market.

Within the framework of the Erasmus+ project "Improving postgraduate education in the field of sustainable agriculture and agricultural systems of the future" (SAGRIS), 4 modules have been developed as a joint action of higher educational institutions of the Russian Federation, the Republic of Kazakhstan, Poland, the Czech

Republic and Germany and with the support of national authorities in the field of research and education. The purpose of the modules is to encourage doctoral students to study and research issues of sustainable agriculture in important disciplines that reflect the challenges of the 21st century both in the relevant subject areas and in research.

Module 1: SMART-Agriculture and Digitalization

Module 2: Crop and animal husbandry systems in the context of climate change

Module 3: Advanced methods of scientific work

Module 4: Transdisciplinary research methods for sustainable agriculture

In this connection, in the current academic year, various disciplines of the developed modules were introduced into the educational programs of the doctoral program in agricultural areas - Animal Husbandry, Agronomy, Mechanical Engineering, Agricultural Machinery and Technology, Biology within the framework of the international SAGRIS project – Improving postgraduate education in the field of sustainable agriculture and agricultural systems of the future.

It is expected that the use of materials developed by an international team will improve the quality of training programs for doctoral students, including through information on specific examples of the introduction of smart agriculture technologies in the participating countries of the Project.

In addition, personal and official contacts between universities acquired during the SAGRIS project can also influence the further development of such aspects of the educational process as internships, joint articles of doctoral students, as well as the involvement of foreign scientific consultants.

The equipment purchased within the framework of the Project will allow expanding and qualitatively improving the subject of doctoral research.

The main conceptual idea of the modular training system is to focus students not on the curriculum, but on the "learning outcomes" – the expected effectiveness, which consists of the totality of what the student should know, understand and be able to perform in the course of his professional and social activities at the end of the training course – to meet the employment requirements.

Conclusion: from the above analysis it follows that the publication activity of teaching staff and doctoral students of KRU A. Baitursynov in the databases Scopus and Web of Science for the past three years is on the decline, a positive point is the emphasis on the quality of publications.

Thus, we believe that the level of internationalization and the quality of scientific research will increase through the development of network cooperation in the above directions.