

**Kick-Off Meeting
Berlin
4-5 March 2019**

**New and Innovative
Courses for Precision
Agriculture**



**Sh. Ualikhanov Kokshetau State University,
S. Sadvakassov Agrarian-Economic Institute**

Rector, prof. Marat Syrlybayev

**Joint Project: Capacity Building in the Field of
Higher Education ERASMUS+ 2018**

**Co-funded by the
Erasmus+ Programme
of the European Union**



University Profile: Short History; Facts & Figures

Shokan Ualikhanov Kokshetau State University was one of the first higher educational institutions in the Northern region of the Republic of Kazakhstan.

It was founded as a pedagogic institute in 1962, but at the end of the XX century it became a rapidly developing, big educational, scientific and cultural center of the region.

It deals with a broad range of the educational and research services, helps to develop cooperation with customers, training and scientific centers, mass media and society



University Profile: Short History; Facts & Figures

Starting from 2008 Sh.Ualikhanov university has been an active participant of such international programs and projects as:



TEMPUS IV



ERASMUS MUNDUS



ERASMUS +

In the course of these past 11 years the university has successfully completed 6 joint educational projects of TEMPUS IV, 2 ERASMUS MUNDUS, 7 joint educational projects Erasmus + KA2 CBHE and 7 ERASMUS + KA1 ICM.

More than 50 students, master and PhD students, academic and administrative staff took part in the academic and credit mobility

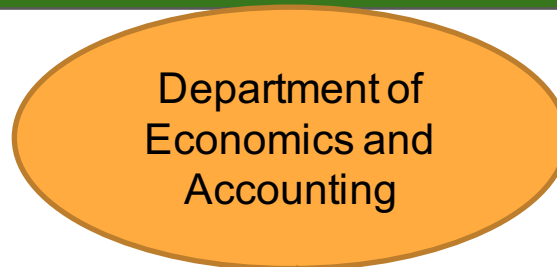


University Profile: Faculties

- Philology and Pedagogy Faculty
- Technique and Technologies Faculty
- Natural Sciences Faculty
- History, Law, Art and Sport Faculty
- S.Sadvakassov Agrarian - Economic Institute
- Faculty of Medicine



S. Sadvakassov Agrarian- Economic Institute



BA/MA Programs Offered by the Faculty

No	BA Programs	MA Programs	PhD Programs
1	Agronomy	Agronomy;	Agronomy
2	Soil Science and Agrochemistry	Soil Science and Agrochemistry	
3	Technology of production of livestock products		
4	Agrarian Engineering and Technology	Agrarian Engineering and Technology	
5	Forest Resources and Forestry		
6	Accounting and audit		
7	Economics	Economics	
8	Finance		
9	Management	Management	



Curricula/Modules Studied in the BA/MA Programs to Upgrade

BA programs

- Agronomy
- Agrarian Engineering and Technology

MA programs

- Agronomy
- Agrarian Engineering and Technology

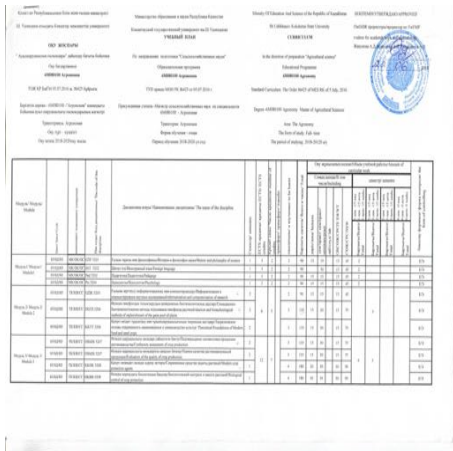


Table showing the curriculum for the BA Agronomy program. It includes a header with program details and a main table with columns for course number, course name, credits, and semester. The table lists various courses such as 'Introduction to Agronomy', 'Soil Science', 'Plant Nutrition', and 'Agricultural Machinery'.

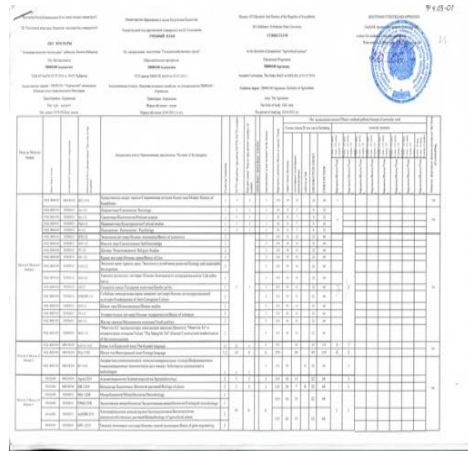


Table showing the curriculum for the MA Agronomy program. It includes a header with program details and a main table with columns for course number, course name, credits, and semester. The table lists advanced courses such as 'Advanced Agronomy', 'Soil Fertility', and 'Crop Production'.

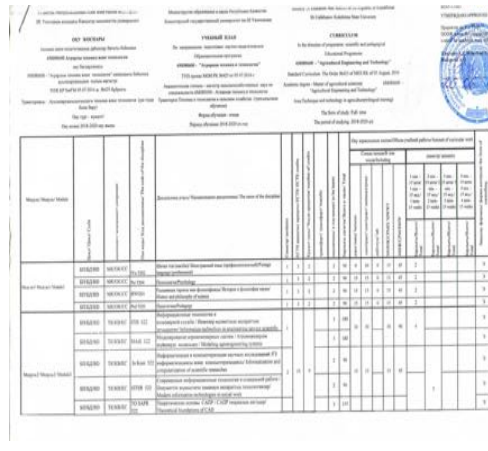


Table showing the curriculum for the BA Agrarian Engineering and Technology program. It includes a header with program details and a main table with columns for course number, course name, credits, and semester. The table lists courses such as 'Introduction to Agrarian Engineering', 'Mechanics of Agricultural Machinery', and 'Electrical Systems in Agriculture'.

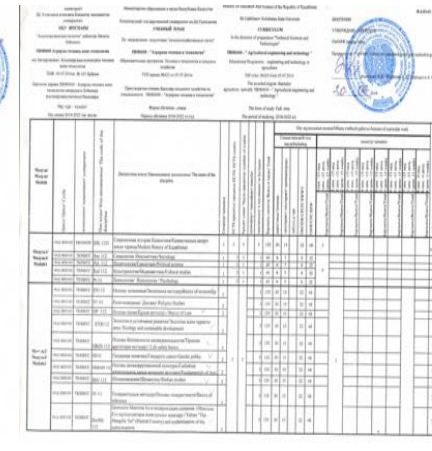


Table showing the curriculum for the MA Agrarian Engineering and Technology program. It includes a header with program details and a main table with columns for course number, course name, credits, and semester. The table lists advanced courses such as 'Advanced Agrarian Engineering', 'Design of Agricultural Machinery', and 'Automation in Agriculture'.

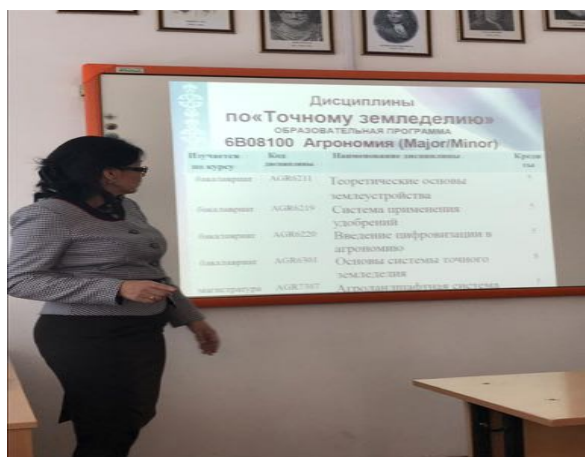


Curricula/Modules Studied in the BA/MA Programs to Upgrade

February 26 and 28, 2019 at the Sh. Ualikhanov KSU held a discussion of educational programs of undergraduate and graduate – «Agronomy» and «Agrarian Engineering and Technology».

During the discussion, a survey of employers, students, graduates and teachers was conducted to identify the existing needs for graduates of this specialty.

All participants noted the fact that graduates of these specialties should have knowledge in the field of precision agriculture. They offered disciplines for inclusion in the curriculum of specialties «Agronomy» and «Agrarian Engineering and Technology».



New Curricula/Modules for BA/MA Programs

New curricula (modules) to be developed in our University during the project

BA

MA

Agronomy

Agrarian Engineering and Technology

Agronomy

Agrarian Engineering and Technology

Theoretical foundation of land management

Basics of the precision farming system

Agrolandscape farming system

Application of GIS technology

Information technologies in the engineering service

Introduction digitalization of agronomy

IT technologies and operation of agricultural equipment

Engineering and technology in crop growing



Experimental platform for the project NICOPA

Educational, research and production center «ЭЛИТ» Sh.Ualikhanov KSU

300 hectares of arable land,
36 hectares experimental field

modern machinery and
equipment

livestock bases

infrastructure



Work Group of the Project NICOPA

1. **Marat Syrlybaev** - rector, head of the project. Responsible for the coordination and implementation of the project NICOPA in Sh. Ualikhanov KSU.;

2. **Anargul Belgibayeva**-local coordinator, teacher of the project. Internal communication on the implementation of the project at the University. Periodic presentation of training reports and presentations on project implementation, as well as participation in coordination meetings and Skype coordination meetings. Development of recommendations for the modernization of training modules. Analysis and processing of questionnaires;

3. **Anuar Kakabayev**-administrative coordinator, teacher of the project. External communication with project management and other consortium organizations. Periodic financial reporting, as well as participation in coordination meetings and Skype coordination meetings, purchase of equipment, dissemination of project results.



Work Group of the Project NICOPA

4. **Maria Auzhanova**-teacher of the project: analysis, updating and development of training modules at the University; organization and conduct of master classes; implementation of the project results at the University, testing at industrial enterprises and educational institutions of Akmola region; preparation of questionnaires for students, undergraduates, graduates and employers;
5. **Nurbol Kakabayev**-teacher of the project: analysis, updating and development of training modules at the University; organization and conduct of master classes; media presentations; preparation of publications on the project and handouts, information stands;
6. **Aislu Burkitbay**-1st year master's student: explanatory work on the goals and objectives of the project for students and undergraduates; evaluation of the quality of mastering the studied material;
7. **Sayakhat Bekbulatov** - the regional representative of the company “Bayer Kaz”. Practical testing of the results of the project, a qualitative assessment of the educational-methodical documentation on the relevance, novelty and practical significance.



Project implementation plan



Project implementation plan
597985-EPP-1-2018-1-KZ-EPPKA2-CBHE-JP
«New and Innovative Courses for Precision Agriculture (NICOPA)»
Sh.Ualikhanov KSU

Ref.nr/ Sub-ref nr	Activities Title	Start	End	Responsible
1.1 Prep.	Review of the current curricula for BA/MSc in target area in PC HEIs.	15.11.2018	30.04.2019	A.Belgibayeva, M.Auzhanova, N.Kakabayev
1.2 Prep.	Agreement on instructional strategy and guidelines for BA/MSc curricula design including the use of new Educational Technologies	15.11.2018	31.03.2019	M.Syrlybaev, A.Kakabayev, A.Belgibayeva
2.1 Prep.	a) Prepare a set of new core curricula and transferable modules inclusive innovative teaching/ learning facilities; develop syllabi; b) adopt on institutional level c) accredit on national level	a)01.12.2018 b)01.10.2019 c)01.10.2020	a) 30.03.2020 b) 30.09.2020 c) 31.08.2021	a) A.Belgibayeva, M.Auzhanova, N.Kakabayev b) c) M.Syrlybaev, A.Kakabayev, A.Belgibayeva, M.Auzhanova, N.Kakabayev

	evaluation/reports according to Q Plan			N.Kakabayev
4.1 Diss.	Project DISS& EXP /communication plan using a Set of Promotional Materials; Dissemination Events, Joint WEB based platform, "NICOPA+" Agreement	15.11.2018	14.11.2021	A.Belgibayeva M.Auzhanova, N.Kakabayev, A.Burkitbai
4.2 Diss.	Full media coverage of the project activities inclusive developing and maintenance of Joint WEB based platform	15.11.2018	14.11.2021	A.Belgibayeva M.Auzhanova, N.Kakabayev, A.Burkitbai
4.3 Diss.	Develop a set documentation on PASO with stakeholders support /purchase /install equipment /establish	01.02.2019	30.04.2020	A.Kakabayev
4.4 Diss.	Staff training for PASO, establishing Regional /International PASO network, pilot operation	01.04.2020	30.09.2021	M.Auzhanova, N.Kakabayev, A.Belgibayeva
4.5 Diss.	Refresh training courses for graduates in PASO	01.10.2020	31.08.2021	M.Auzhanova, N.Kakabayev, A.Belgibayeva
4.6 Diss.	International BA/ MSc Summer Schools 1-st.09-10.2020 2-nd.04-08.2021	01.04.2020	31.08.2021	A.Belgibayeva N.Kakabayev
5.1. Manag.	Management of the project including Project management online, daily project administration and coordination	15.11.2018	14.11.2021	A.Belgibayeva N.Kakabayev
5.2. Manag.	Coordination meetings	15.11.2018	14.11.2021	A.Belgibayeva N.Kakabayev

The local coordinator of the project

Belgibayeva A.S.



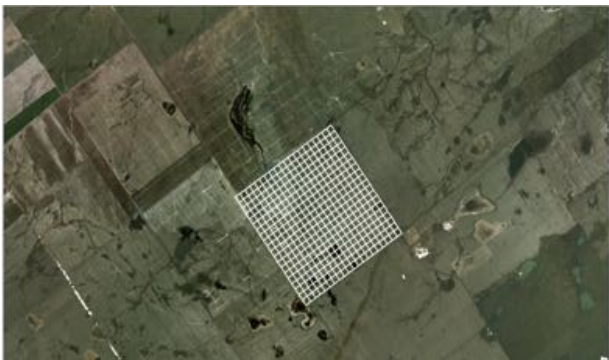
Work Group of the Project NICOPA

In the Message of President Nursultan Nazarbayev to the people of Kazakhstan dated January 10, 2018 digitalization of agriculture is defined as one of the most priority directions of development of the country in the near future. Implementation of the program "Digital Kazakhstan» is designed for 2018-2022.

Agriculture is the direction of the economy, which usually uses the least new digital technologies.

In turn, the digitalization of agriculture requires highly qualified personnel with knowledge of automation and robotics.

In this regard, the relevance of the NICOPA project aimed at training students and undergraduates in the field of precision agriculture is not in doubt.





Thank you for you attention!



Co-funded by the
Erasmus+ Programme
of the European Union

Prof. Marat Syrlybayev
Rector

E-mail: marat_ksu@mail.ru

Phone: +77162255583