ACCESSIBILITY AND HARMONIZATION OF HIGHER EDUCATION IN CENTRAL ASIA THROUGH CURRICULUM MODERNIZATION AND DEVELOPMENT

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Coordinated by Burgas Free University

DEV. 2.4.1 - ACADEMICA training path National Experimentation Report

Institutions:

1. Shokan Ualikhanov Kokshetau State University

2. International Information Technology University

3. Kostanay state pedagogical institute

4. Abay Myrzakhmetov Kokshetau University

Country: The Republic of Kazakhstan

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Dissemination Level **Deliverable target Group**	International HE Institutions in EU and Kazakhstan, Uzbekistan and Turkmenistan, educational authorities on all levels, University and professional networks, EACEA and commission services and project reviewers, and any other actors of the educational sector as well as all interested parties.
Language	EN, RU

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1. Participant's Profile

The number of:

№	The name of HEI	The number	
		Males	Females
1.	Shokan Ualikhanov Kokshetau State University	3	7
2.	International Information Technology University	13	34
3.	Kostanay State Pedagogical Institute	4	6
4.	Abay Myrzakhmetov Kokshetau University	2	8
	Итого:	22 (28%)	55 (71,4%)

The analysis of the data on participants' profile specifies that female persons to be more engaged in training of specialists of a technical and engineering profile. From the point of view of psychological and pedagogical science the gender aspect isn't the technical and engineering sphere dominating in professional formation of experts though deficiency of males in the education system has constant character and can exert impact on motivation and a goal-setting of experts.

The area of research:

1) Information Technologies
2) Information systems
3) Computing
4) Mining
5) Informatics

Age:

№	The name of HEI	Age			
		20-30	30-40	40-50	Более 50
1.	Shokan Ualikhanov Kokshetau State University	2	4	1	3
2.	International Information Technology University	18	12	8	9
3.	Kostanay State Pedagogical Institute		6	2	2
4.	Abay Myrzakhmetov Kokshetau University	6	2	2	
	Total:	26	24	13	14
	In per cent:	33,7	31,1	16,8	18,2

The age as a biological category isn't an indicator of success or ill-success of the chosen activity, but as practice shows in such the high-growth and changing professions which are connected with information and communication technologies the ability of quick response to all changes is necessary. More than 50% of teachers haven't reached 40 years that can indicate the ability of an effective introduction of labor market changing requirements to the educational process. .

Teaching experience:

№	The name of the HEI	Teaching experience		
		Less than 5 years	5-10 years	Over 10 years
1.	Shokan Ualikhanov Kokshetau State University	2	1	7
2.	International Information Technology University	6	27	14
3.	Kostanay State Pedagogical Institute			10
4.	Abay Myrzakhmetov Kokshetau University	3	4	3
	Total:	11	32	34
	In per cent:	14,3	41,5	44,2

Thus, 44,2% of teachers have more than 10 years of teaching experience that testifies to the good personnel potential of the faculty of HE institutions, pointing out the fundamental nature of training of specialists.

2. ACADEMICA training promotion and selection process

The organizational and standard basis of advance of training is the following:

1) university teachers - constant providers of innovations in Higher Education institutions;

2) expansion of digital educational technologies and development of open educational resources are the key factors of modernization of the Higher Education (Digital Kazakhstan — 2030 Program);

3) modernization of educational programs will be carried out by means of updating of disciplines within ERASMUS+ project "ACADEMICA".

The theoretical and methodological basis consists of a goal of the electronic course developed within the ACADEMICA project: to provide teachers of universities with necessary know-how for modernization of traditional face-to-face lessons, transforming them to purely distant or blended courses.

Achievement of this purpose will promote the process of modernization, reorganization and transformation of universities in the context of bigger flexibility, openness and online up-to-date ensuring education.

The material and technical resources are provided by means of creation of laboratories equipped with modern hardware and software, other means of information technologies.

Practice-oriented training: The E-course ACADEMICA will present the innovative methods of training and pedagogical tools based on the modern ICT conforming to the European educational standards and the advanced practice in the higher education.

Training in the e-course ACADEMICA is carried out within the virtual environment of training at a Moodle platform basis.

The electronic course includes theoretical knowledge, lectures, discussions in virtual classes, case studies and seminars.

The application-oriented aspect:

- the teachers participating in a training will be equipped with the basic (transversal) and key competences and skills necessary for their active switching on in global digital educational space;

- at the end of course they will be able to develop or find online training materials and open educational resources and to define the necessary standard for lessons and content, to use the tools offered the Web 2.0..

At the end of course teachers will be able:

• to understand evolution of distance learning;

• to create the adjusted models of lessons;

• to use social networks for improvement of educational process and optimization of interaction of students;

• to find license-free training materials and suitable open educational resources;

• to develop training materials in flexible technology;

• to use the latest pedagogical technologies, both traditional and digital.

4. ACADEMICA Training Path Results

4.1 English course

Number of lecturers who have successfully completed the course:_____50_____

Number of lecturers who don't have completed the course:_____0_____

Number of lecturers who have achieved the highest score:_____45_____

Number of lecturers who have achieved the lowest score:_____5_____

4.2 Module ***1***

Number of lecturers who have successfully completed the course:_____78_____

Number of lecturers who don't have completed the course:_____1_____

Number of lecturers who have achieved the highest score:_____40_____

Number of lecturers who have achieved the lowest score:_____7_____

Number of lecturers who have completed the assessment:_____69_____

Number of lecturers who have attended the 1st virtual class:_____1-72_____

4.3 Module 2

Number of lecturers who have successfully completed the course:_____77_____

Number of lecturers who don't have completed the course:_____2_____

Number of lecturers who have achieved the highest score:_____39_____

Number of lecturers who have achieved the lowest score:_____3_____

Number of lecturers who have completed the assessment:_____63_____

Number of lecturers who have attended the 2 virtual class:_____2-46_____

4.4 Module 3

Number of lecturers who have successfully completed the course:_____77_____

Number of lecturers who don't have completed the course:_____2_____

Number of lecturers who have achieved the highest score:_____35_____

Number of lecturers who have achieved the lowest score:_____15_____

Number of lecturers who have completed the assessment:_____59_____

Number of lecturers who have attended the 3 virtual class:_____3-48_____

4.5 Module 4

Number of lecturers who have successfully completed the course:_____76_____

Number of lecturers who don't have completed the course:_____2_____

Number of lecturers who have achieved the highest score:_____44_____

Number of lecturers who have achieved the lowest score:_____11_____

Number of lecturers who have completed the assessment:_____63_____

Number of lecturers who have attended the 4 virtual class:_____4-41_____

4.6 Module 5

Number of lecturers who have successfully completed the course:_____76_____

Number of lecturers who don't have completed the course:_____2_____

Number of lecturers who have achieved the highest score:_____39_____

Number of lecturers who have achieved the lowest score:_____9_____

Number of lecturers who have completed the assessment:_____55_____

Number of lecturers who have attended the 5 virtual class:_____5-46_____

4.7 Module 6

Number of lecturers who have successfully completed the course:_____78_____

Number of lecturers who don't have completed the course:_____0_____

Number of lecturers who have achieved the highest score:_____50_____

Number of lecturers who have achieved the lowest score:_____1_____

Number of lecturers who have completed the assessment:_____52_____

Number of lecturers who have attended the 1st virtual class:_____6-76_____

4.8 Final results

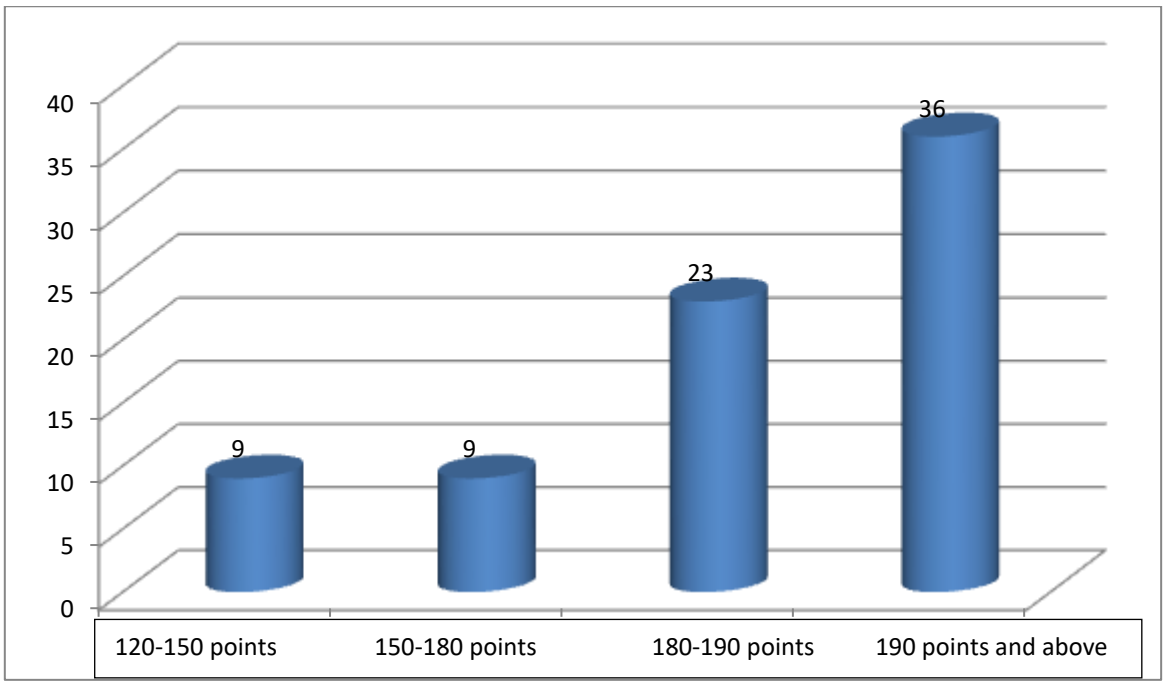
Number of initial participants:___79_____

Number of dropouts:_____2_____

Please, explain the reasons:

one person has been accepted as the graduate student and has gone to the USA, the second - has left university (IITU, , Almaty).

The final result has shown that that all participants who were going to modernize their courses successfully completed the training (see the Chart 1)



Apparently the chart shows that all results are higher than 100 points and it is an indicator of high-quality training.

What are the strengths of the course?

Full presentation of all lecture materials including detailed preliminary instructions, audio lectures, presentations, full texts and at the end of each module - virtual classes.

What are the weaknesses of the course?

1) Insufficient interaction of teachers of higher education institutions – partners;

2) Work in holidays;

3) Various technical failures when loading materials;

4) Virtual classes were held during the classes of teachers, which affected the attendance of the meeting by all participants of partner universities.

What are the lecturers' suggestions to improve it?

1) To speed up work of teachers in the direction of development of the general syllabi by partners of the project;

2) Development of collective monographs, manuals and educational and methodical complexes of disciplines;

3) Development of mechanisms of further stimulation of teachers activity in international projects;

4) To make active ACADEMICA website by means of involvement of students, undergraduates and teachers for the purpose of receiving feedback.

5. Curricula to be modernised

Number of selected curricula to be modernized:___10_____

***Science domain/s*:** Information systems, Computer facilities, Mining, Informatics, Information Technologies, Computer Systems and Software Engineering, , Management in IT, Finance in IT, Information Security Systems, Radioengineering and Telecommunications, Electronic Journalism.

Number of new syllabus to be tested: 76

№	Full name of Lecturer	Educational degree (BA or MA)	Name of discipline	Number of credits /or hours	Specialty	Semester (S or W)
1.	Baikenov N.A.	BA	1) Electrical and electricity of mining companies	5	5B070700 – Mining Engineering	W
			2) Professionally-oriented foreign language	3	5B070700 – Mining Engineering	S
2.	Baklhazova U.U.	BA	1) Programming Technology	7	5B 070400 Computer Engineering	W
			2) Information Theory	3	5B070400 Computer Engineering	S
3.	Glock E.S.	BA	1) Computer Graphics	5	5B070300 - Information Systems	W
			2) Information security and protection of corporate information systems and networks	5	5B070300 - Information Systems	S
4.	Kishkenbaev N.	BA	1) Electrical and electricity of mining companies	5	5B070700 – Mining Engineering	W
			2) Construction of mining enterprises	5	5B070700 – Mining Engineering	S
5.	Kubigenova A.T.	BA	1) The theory of electrical circuits	7	56B070400 Computer Engineering	W

			2) Architecture and organization of computer systems	5	56B070400 Computer Engineering, 5B070300 - Information Systems	S
6.	Muradilova G.S.	BA	1) Organization of Computing Systems and Networks	7	56B070400 Computer Engineering	W
			2) Fundamentals of Information Systems	3	5B070300 - Information Systems	S
7.	Sakenova Zh.R.	BA	1) Processes of open cost mining 1	5	5B070700 – Mining Engineering	W
			2) Physics of rocks	5	5B070700 – Mining Engineering	S
8.	Fomicheva T.A.	BA	1) VisualC++ programming	5	5B070300 - Information Systems	W
			2) Computer networks	7	5B070300 - Information Systems	S
9	Khan S.I.	MA	1) The theory of complex systems	5	5M070300 - Information Systems	W
		BA	2) Fundamental of computer simulation	5	5B070300 - Information Systems	S
10.	Shornikova O.N.	BA	1) Delphi programming	5	5B070300 - Information Systems	W
			2) System programming	5	5B070400 Computer Engineering	S
11.	Sukhov Mikhail	BA	Information and communication technologies	3	5B011100: Computer Science, 5B011900: Foreign language: two foreign languages	W
12.	Eslyamov Serik	BA	Information and communication technologies	3	5B011100: Computer Science, 5B011900: Foreign language: two foreign languages	W

13.	Ersultanova Zauresh	BA	Information and communication technologies	3	5B011100: Computer Science, 5B011900: Foreign language: two foreign languages	W
14.	Tobylov Kuanysh	BA	Information and communication technologies	3	5B011100: Computer Science, 5B011900: Foreign language: two foreign languages	W
15.	Dauletbaeva Gulsum	BA	Information and communication technologies	3	5B011100: Computer Science, 5B011900: Foreign language: two foreign languages	W
16.	Tsyganova Alla	BA	Information and communication technologies	3	5B011100: Computer Science, 5B011900: Foreign language: two foreign languages	W
17.	Radchenko Tatiana	BA	Information and communication technologies	3	5B011100: Computer Science, 5B011900: Foreign language: two foreign languages	W
18.	Radchenko Petr	BA	Information and communication technologies	3	5B011100: Computer Science, 5B011900: Foreign language: two foreign languages	W
19.	Aytbenova Ayan	BA	Information and communication technologies	3	5B011100: Computer Science, 5B011900: Foreign language: two foreign languages	W

20.	Ospanova Shynar	BA	Information and communication technologies	3	5B011100: Computer Science, 5B011900: Foreign language: two foreign languages	W
21.	Seilkhan Zhartanov	BA	Programming Technology	5	5B070300 – Information systems	W
22.	Seilkhan Zhartanov	BA	Data Base Systems	5	5B070300 – Information systems	W
23.	Fatima Nadyrova	MA	Management + in IT	5	6M070300 – Information systems	W
24.	Fatima Nadyrova	BA	Information communication technology	5	5B070300 – Information systems	S
25.	Fatima Nadyrova	BA	Data base in information systems	5	5B070300 – Information systems	S
26.	Akbota Meirmanova	BA	Physics	5	5B070300 – Information systems	W
27.	Akbota Meirmanova	BA	Theory electric chains	5	5B070300 – Information systems	S
28.	Makhabat Agzamova	MA	Architecture information system	5	6M070300 – Information systems	W
29.	Makhabat Agzamova	BA	Architecture of computer system	5	5B070300 – Information systems	S
30.	Makhabat Agzamova	BA	Web - programming	5	5B070300 – Information systems	W
31.	Natalya Salikova	BA	Basis of radiation safety	5	5B073100 – Life safety and environmental protection	S
32.	Natalya Salikova	BA	Metrology, standardization, certification	5	5B073100 – Life safety and environmental protection	W
33.	Sayagul Zhaparova	BA	Principles and types of monitoring	5	5B073100 – Life safety and environmental protection	W
34.	Sayagul	BA	Protection of the air basin	5	5B073100 – Life safety	W

	Zhaparova		from pollution		and environmental protection	
35.	Zinep Shaimerdenova	BA	Production sanitary	5	5B073100 – Life safety and environmental protection	W
36.	Zinep Shaimerdenova	BA	Rescue work	5	5B073100 – Life safety and environmental protection	W
37.	Murat Karipollaev	BA	Protection in emergency situations	5	5B073100 – Life safety and environmental protection	W
38.	Murat Karipollaev	BA	Emergency situations of technogenic and natural character	5	5B073100 – Life safety and environmental protection	W
39.	Temirbekova Nurgul	BA	Fire safety	5	5B073100 – Life safety and environmental protection	S
40.	Lyudmila Makeyeva	BA	Chemistry	5	5B073100 – Life safety and environmental protection	W
41.	Lyudmila Makeyeva	BA	Chemical analysis	5	5B073100 – Life safety and environmental protection	S
42.	Omarbekova Alnura	BA	Microelectronics	4		S
43.	Kozina Lyudmila	BA	Database Design	5		W
44.	Urazakov Yerlik	BA	The theory of Physics	5		S
45.	Temirbolatova Tolganay	BA	1) E-Learning concept	5		S
			2) The Learnig Management System	5		W
			3) Custom vs. Open LMS	5		W
			4) Massive Courses	5		W
			5) Student-teacher	5		WS

			interaction			
			6) E-Learning and social networking	5		WS
46.	Brodyagina Mariya	BA	1) Architecture and Design	5		WS
			2) Application Development	5		S
47.	Amanzholova Saule	BA	Information and Communication Technology (a)	5		WS
48.	Pyagay Viktor	BA	Routing and switching essentials	5		WS
49.	Bakhtiyarova Yelena	BA	1) The theory of electrical communication	5		W
		MA	2) The theory and technology of a scientific experiment	5		WS
50.	Mishina Aigerim	BA	1) Operating systems	5		W
			2) Scaling networks	5		W
51.	Duzbayev Nurzhan	BA	Information theory	5		S
		MA	Theory of prediction and decision making	5		S
52.	Aitmagambetov Altai	BA	Basics of radio circuits and signals	5		S
53.	Ospan Alua	BA	1) Software project management	5		S
			2) Database systems	5		W
			3) Programming on Python	5		W
54.	Ospan Alua, Moldagulova Aiman	BA	Information and Communication Technology (b)	5		WS
55.	Amanzholova Saule	BA	Information and Communication Technology (c)	5		WS
56.	Mamyrbekov	BA	Analytical Data Analysis	5		WS

	Alibek					
57.	Rakhmetulla G.	BA	Human-Computer Interaction and Communication	5		WS
58.	Altaibek Aizhan	BA	Object-oriented programming	5		WS
59.	Orazbekov Sayatbek	BA	Algorithmization and Programming languages	5		S
60.	Kozhamzhar ova Dinara	BA	Computer networks	5		WS
61.	Mukhitova Karlygash	BA	Information security	5		S
62.	Koishybayev Igibek	BA	Cybersecurity	5		S
63.	Satybaldiyev a Ryskhan	BA	Databases and Client/Server Applications	5		W
64.	Pachshenko Galina	BA	Algorithms, data structures and programming	5		WS
65.	Berdykulova Galiya	BA	Principles of economics	5		S
66.	Sharapieva Z.T.	BA	Management of change	5		WS
67.	Shorokhov Dmitry	BA	Photojournalism	5		S
68.	Niyazgulova Aigul	BA	YV and radio journalism	5		W
69.	Zhaparova Ainura, Zhanabayev a Svetlana, Yelubay Yerkynay, Ermakova Vera, Kabdrgalino	BA	English for professional purposes (STEM, Computer Engineering, Radioengineering, Finance, Business, Management, Media)	5		W

	va Saniya, Abdulina Meruert, Nurmetov Diyar, Marco Angelo Vasquez, Bekbulatov Takhir					
70.	Jolamanova Balia	BA	Business English (STEM)	5		W
71.	Utelbayeva Nurzhigan	BA	Introduction into IELTS (STEM)	5		W
72.	Sklyarenko Xeniya, Dyussenova Dinara	BA	Professional Russian (STEM)	5		W
73.	Pak Natalya	MA	English for Master students	5		W
74.	Bektemysso va Gulnara	MA	Machine learning	5		S
75.	Shildibekov Yerlan	MA	Introduction to Project Management	5		S
76.	Jumadilova Shynara	MA	Quantitative methods for management	5		W

Thus, Bachelor degree programme has 88 courses for modernisation, Master degree – 9 - to be modernized. 67 teachers modernize BA courses, 4 teachers – MA courses, and 3 teachers - both BA and MA courses.