ASIIN Seal

Accreditation Report

Bachelor's and Master's Degree Programmes
Biology
Chemistry
Geography

Provided by
Kazakh National Pedagogical University

Version: 01st July 2016

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A About the Accreditation Process

Name of the degree programme (in original language)	(Official) English translation of the name	Labels applied for [1]	Previous accreditation (issuing agency, validity)	Involved Technical Committees (TC)[2]
Ba Biology		ASIIN	none	10
Ma Biology		ASIIN	none	10
Ba Chemistry		ASIIN	none	09
Ma Chemistry		ASIIN	none	09
Ba Geography		ASIIN	none	11
Ma Georgraphy		ASIIN	none	11
Date of the contract: 17.01.2013 **Submission of the final version of the self-assessment report:** 04.03.2014 **Date of the onsite visit:** 04./05.03.2015 **at:** Almaty				
Peer panel: Prof. Dr. Dieter Böhn, University of Würzburg; Prof. Dr. Ingo Eilks, University of Bremen; Prof. Dr. Tobias Hillmann, University of Applied Sciences Neubrandenburg; Prof. Dr. Gerd Klöck, University of Applied Sciences Bremen; StuD Monika Pohlmann, University of Köln;				

[1] ASIIN Seal for degree programmes

[2] TC: Technical Committee for the following subject areas: TC 01 – Mechanical Engineering/Process Engineering; TC 02 – Electrical Engineering/Information Technology); TC 03 – Civil Engineering, Surveying and Architecture; TC 04 – Informatics/Computer Science); TC 05 – Physical Technologies, Materials and Processes); TC 06 – Industrial Engineering; TC 07 – Business Informatics/Information Systems; TC 08 – Agronomy, Nutritional Sciences and Landscape Architecture; TC 09 – Chemistry; TC 10 – Life Sciences; TC 11 – Geosciences; TC 12 – Mathematics; TC 13 – Physics.

Dr. Dietrich Scherzer, BASF SE; Prof. Dr. Marina Vogel, University of Applied Sciences Dresden.	
Representative of the ASIIN headquarter: Dr. Georg Ebertshäuser	
Responsible decision-making committee: Accreditation Commission for Degree Programmes	
Criteria used: European Standards and Guidelines as of 10.05.2005 ASIIN General Criteria, as of 04.12.2014 Subject-Specific Criteria of Technical Committee 09 – Chemistry, 10 – Life Sciences, and 11 – Geosciences as of 09.12.2011	

In order to facilitate the legibility of this document, only masculine noun forms will be used hereinafter. Any gender-specific terms used in this document apply to both women and men.

B Characteristics of the Degree Programmes

a) Name	Final degree (original/English translation)	b) Areas of Specialization	c) Corresponding level of the EQF[3]	d) Mode of Study	e) Double/Joint Degree	f) Duration	g) Credit points/unit	h) Intake rhythm & First time of offer
Biology	B.Ed.		6	Full time / Part time	no	8 Semester	240 ECTS/150 Kazakh CP	Winter term / 2004
Biology	M.Ed.		7	Full time	no	4 Semester	140 ECTS/51 Kazakh CP	Winter term / 2011
Chemistry	B.Ed.		6	Full time / Part time	no	8 Semester	240 ECTS/150 Kazakh CP	Winter term / 2004
Chemistry	M.Ed.		7	Full time	no	4 Semester	140 ECTS/51 Kazakh CP	Winter term / 2011
Geography	B.Ed.		6	Full time / Part time	no	8 Semester	240 ECTS/150 Kazakh CP	Winter term / 2004
Geography	M.Ed.		7	Full time	no	4 Semester	140 ECTS/51 Kazakh CP	Winter term / 2011

According to the Self Study Report the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Bachelor's degree programme Biology:

Graduates acquire the following social competence (SC):

☐ able to work in a team and have a communicative, organizational and group skills needed for this;

[3] EQF = The European Qualifications Framework for lifelong learning

☐ able to communicate on the content and problems of the selected discipline both with colleagues and with members of the general public, including those from other countries in a foreign language, aware of the social and ethical responsibility and recognize professional ethical principles and norms of the discipline;

☐ capable of individual and group work with members of other ethnic groups of both sexes, to the organization and effective implementation of projects to assume the appropriate management responsibilities, capable of learning throughout life;

☐ own information technology and tools to search, analyze and present information;

☐ able to establish and maintain the necessary contacts with other people;

☐ build effective communication and interpersonal communication, a dialogue in a foreign language, follows the rules of the culture of speech in public speaking;

☐ own methodology of philosophical understanding of the world and education as an integrated system;

☐ know the basics of economics, psychology and special disciplines that address the management objectives;

☐ possess critical thinking, mental operations, methods of personal expression and self-development;

☐ independently solve cognitive problems, have a social responsibility for the results of their professional work.

Professional competences are characterized by the fact that a graduate:

is able to model educational process, realize it when teaching;
can apply qualitative and quantitative methods of psychological and pedagogical research;
is able to apply methods of diagnosing development, communication, activities of different age children;
is able to apply the knowledge of different theories of teaching, educating and developing, and the educational
programs for various level trainees, as well;
can apply the methods of organizing different children activities;
knows the ways of organizing professional activity in multicultural society taking into account peculiarities of
socio-cultural structure of the society, also laws and principles of national education;
have basic biological concepts, knowledge of biological laws and phenomena;
has knowledge about the peculiarities of the morphology, ecology, reproduction and geographical distribution
of plants, animals, fungi and micro-organisms, understand their role in nature and human activities;
is able to explain the chemical basis of biological processes and physiological mechanisms of the various systems and organs of plants, animals and humans;
is able to focus on issues of biochemical unity of the organic world, the molecular basis of heredity, variability and methods of genetic analysis;
has knowledge of the laws of the organic world;
is able to understand the principles of sustainability and productivity of nature and the way it changes under the influence of anthropogenic factors, the system is able to analyze global environmental problems, issues of the environment and natural resources;
has a theoretical basis and techniques for teaching biology to high school students;
own methods of theoretical analysis of the results of observations and experiments, computer modeling techniques;
is able to apply knowledge of the theoretical and experimental foundations of biology and technology for teaching biology;

is able of independent research, formulation of natural science experiment, the use of information technology solutions for the scientific and professional tasks, analysis and evaluation of the results of laboratory and field research.

The following **curriculum** is presented:

Biology (B)
Major: 5B011300 - Biology
The academic degree: 5B011300- Bachelor of Education in Biology
Duration: 4 years

Table 9 - Working curriculum (WC) of Biology (B)

Cycle	Discipline code	Name of disciplines	Examinations	Credit	Intotalinhours	Including					1 course		2course		3course		4course	
						Lectrue	Seminar (the practical)	The laboratory.	Tutorial lessons	Self-study	1 sem	2 sem	3 sem	4 sem	5 sem	6 sem	7 sem	8 sem
GEM		**I. General educational module (GEM)**		***33***														
RC		***Requiredcomponent (RC)***		***33***														
CEM RC1	IK 1101	Historyof Kazakhstan	1	3	135	15	30		45	45	6							
CEM RC2	Fil 2102	Philosophy	3	3	135	15	30		45	45			6					
CEM RC3	I Ya 1103	Foreign language	1,2	6	270		90		90	90	6	6						
CEM RC4	K(R)Y a 1104	Kazakh (Russian) language	1,2	6	270		90		90	90	6	6						
CEM RC5	Inf 1105	Informatics	1	3	135	15	30		45	45	6							
CEM RC6	EUR 2106	Ecology and Sustainable Development	4	2	90	15	15		30	30				4				
CEM RC7	Soc 2107	Sociology	3	2	90	15	15		30	30			4					
CEM RC8	Pol 2108	Political sciences	2	2	90	15	15		30	30		4						
CEM RC9	OET 2109	Bases of the economic theory	3	2	90	15	15		30	30			4					
CEM RC10	OP 2110	Bases of Law	4	2	90	15	15		30	30				4				

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CEM RC11	OBZh 1111	Bases of Life Safety	2	2	90	15			45	30		4						
CEM RC12	FK 1112	Physical culture*	1-4	10*	450*						3*	2*	3*	2*				
BM		II. Base module (BM)		64	2880	390	150	420	960	960								
RC		*Required component (RC)*		*20*	900	*135*	*105*	*60*	*300*	*300*	*14*	*20*	*22*	*22*	*14*	*28*	*8*	
BM RC1	VPP 1201	Introduction to pedagogical specialty	1	1	45	15			15	15	2							
BM RC2	Ped 2202	Pedagogics	3	3	135	15	30		45	45			6					
BM RC3	Sam 1205	Self-knowledge	3	2	90	15		15	30	30			4					
BM RC4	Etn 2203	Ethnopedagogics	4	2	90	15	15		30	30				4				
BM RC5	VFSh G 1206	Age physiology and school hygiene	1	2	90	15		15	30	30	4							
BM RC6	PK(R) Ya 3207	Professional Kazakh (Russian) language	5	2	90	15	15		30	30					4			
BM RC7	PRCh 1204	Psychology and human development	3	3	135	15	30		45	45			6					
BM RC8	POIYa 3208	Professional-oriented foreign language	6	2	90	15	15		30	30						4		
BM RC9	MPB 3209	Teaching methods of biology	6	3	135	15		30	45	45						6		
BM EC		*Elective component (EC)*		44	1980	255	45	360	660	660								
BM EC01	OH 1201	General chemistry	2	2	90	15		15	30	30		4						
BM EC02		Anatomy and morphology of plants	2	3	135	15		30	45	45		6						
BM EC03		Systematic of plants	4	3	135	15		30	45	45				6				
BM EC04		Zoology of invertebrates	2	3	135	15		30	45	45		6						
BM EC05		Zoology of vertebrates	4	3	135	15		30	45	45				6				

BM EC06	CG 1206	Cytology and histology	1	2	90	15		15	30	30	4							
BM EC07	BH 3207	Biological chemistry	5	3	135	15		30	45	45					6			
BM EC08	FChZh 2208	Human and animal physiology	4	3	135	15		30	45	45				6				
BM EC09		Genetics	6	3	135	15		30	45	45						6		
BM EC010		Plant physiology	6	3	135	15		30	45	45						6		
BM EC011	Ach 2311	Human anatomy	3	3	135	15		30	45	45			6					
BM EC012	STSO 3212	Modern technical educational tools	5	2	90	15	15		30	30					4			
BM EC013	EST 3313	Natural science	6	3	135	15		30	45	45						6		
BM EC014		Vegetative resources and their territorial distribution	7	2	90	15		15	30	30							4	
BM EC015		Animal resources and their territorial distribution	7	2	90	15		15	30	30							4	
BM EC016	NV 1212	National education	1-2	4	180	30	30		60	60	4	4						
MM		**III. Module Major (MM)**		**32**	**1440**	**210**	***30***	**240**	***480***	***480***								
MM RC		***Required component (RC)***		***5***	**225**	***30***	***15***	***30***	*75*	*75*	***4***	***2***	***4***	***0***	***18***	***8***	***28***	
MM RC1	TMVR 3301	Theory and technique of educational work	5	2	90	15	15		30	30					4			
MM RC1		Introduction to biology	1,2	3	135	15		30	45	45	4	2						
MM EC		***Elective component (EC)***		*27*	**1215**	**180**	**15**	**210**	**405**	**405**								
MM EC	OH 2301	Organic chemistry*	3	2	90	15		15	30	30			4					
MM EC1		Chemistry of organic connections																
MM EC2	ER 3302	Ecology of plants and animals*	5	2	90	15	15		30	30					4			

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MM EC2		World ecosystems																
MM EC3	INP 3303	Making visual aids *	5	2	90	15		15	30	30					4			
MM EC3		Manufacturing offdidacticmaterials																
MM EC4	SNS 3304	Central nervous system of human and animals*	6	2	90	15		15	30	30						4		
MM EC4		Anatomy of central nervous system																
MM EC4		Pychology of central nervous system																
MM EC5	STOB 4305	Modern technologies of teaching biology*	7	3	135	15		30	45	45							6	
MM EC5		Organization out-of-class works on biology.																
MM EC5		Methodology of teaching of biology																
PM EC6	TOE 4306	Technology of teaching ecology*	7	2	90	15		15	30	30							4	
MM EC6		Organization out-of-class works on ecology																
MM EC6		Technology carried out ecological works at school																
MM EC7		Flora and fauna of the world *	7	2	90	15		15	30	30							4	
MM EC7		Fauna morphology																
MM EC7		Variety of fauna and flora																
MM EC8	BSh 3308	Biology at school*	5	3	135	15		30	45	45					6			
MM EC8		The organization laboratory works at biolgiya lessons.																
MM EC8		Biological experimentat school																
MM EC9	FVND 3309	Physiology of higher nervous activity*	6	3	135	15		30	45	45							6	

MM EC9		Higher nervous activity of human																
PM EC10	PBOP 3310	Applied biology with bases of soil science*	6	2	90	15		15	30	30						4		
MM EC10		Agrology																
MM EC12	MB 4312	Molecular biology *	7	2	90	15		15	30	30							4	
MM EC12		Cytobiology																
MM EC13	EvU 4313	Evolutional studies *	7	2	90	15		15	30	30							4	
MM EC13		Evolution of the organic world																
		Additional educational programs.																
		Military training			450													

ELECTIVE COURSES	Sem.	hour	Total:	129	5805	735	540	660	1935	1935	42	42	40	30	32	36	36
Physical culture according to the schedule	1-4	360	Termpaper	Termpaper	2							1		1		1	
Sportssection	5-8		Examinations	Examinations	53						8	9	8	6	7	7	8
			Validation														

	Educational practice	Professional practice	Termpaper:	Totalstate certification
	Educational and field practicians: on botany-4 week. (2-4 semester.) on zoology - the 4th week. (2-4 semester.);	Pedagogicalpractice - 10 weeks. - 8 semester.	1) Biology - 4, 6 sem	Graduation examinations: 1) biology 2) Pedagogics + a teaching Technique in biology or protection degree works
OBLIGATORY SPECIAL COURSES				
Special courses on Scientifically research work as students	4 / 3 0 — In the 6th semester-4 week for 1 week. on disciplines: physiology of plants to genetics, evolution doctrine, applied biology	Continuous student teaching-2 week (2-6 semester)		

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According to the Self Study Report the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Bachelor's degree programme Chemistry:

Graduates acquire the following social competence:
- *is able to* formation and objective assessment of the level of personal ambitions and have the skills to enhance the intellectual development of students;
- *is able to apply* general regulations and methods of social, human and economic sciences to solving social and professional problems;
- logically and correctly *formulates and utters* his/her ideas in mother tongue, *has skills* of oral and written speech in Kazakh (Russian), foreign languages to work with scientific texts and public speaking;
- *applies* the knowledge of foreign language to communication and comprehension of special texts;
- *applies* main methods, ways and means of gaining, storing and processing information; *is able to* work on a computer, including working in the global computer networks;
- *is able to take into consideration* ethnic-cultural and confessional distinctions of the educational process engagers when cooperating socially;
- *demonstrates* moral principles and ethical behavior;
- *realizes* the principles of organization of scientific research, ways of achieving and developing scientific knowledge;
- *is able to develop* skills of healthy life-style in accordance with requirements of hygiene, labor protection and regulations on protection from possible negative influence.

Professional competences are characterized by the fact that a graduate:
- *is able to model* educational process, realize it when teaching;

- *is able to apply* means of considering general, specified (when there are different types of abnormality) mechanisms and individual features of mental and psychophysical development, is familiar with peculiarities of regulating human behavior and activities at different age;
- *can apply* qualitative and quantitative methods of psychological and pedagogical research;
- *is able to apply* methods of diagnosing development, communication, activities of different age children;
- *is able to apply* the knowledge of different theories of teaching, educating and developing, and the educational programs for various level trainees, as well;
- *can apply* the methods of organizing different children activities;
- *can apply* the methods of organizing joint activities and interpersonal interactions of educational engagers;
- *realizes* a great social importance of the profession, conforms to the principles of professional ethics;
- *knows* the ways of organizing professional activity in multicultural society taking into account peculiarities of socio-cultural structure of the society, also laws and principles of national education;
- *is able to participate* in interdisciplinary and interdepartmental cooperation of the specialists for solving professional problems;
- *is able to apply* a technique of critical thinking;
- *is able to apply* theoretical bases and technologies of training chemistry of high school pupils;

- *knows* conceptual and theoretical bases of chemistry, its place in the general system of sciences and values, history of development and a current state;
- *is able to apply* system of knowledge of fundamental chemical laws and theories, chemical essence of the phenomena and processes in the nature and the technician;
- *is capable* to apply knowledge of theoretical and experimental bases of chemistry and technologies of teaching chemistry, owns methods of formation schoolchildren’ s subject skills, owns receptions of arising interest to chemistry and uses his knowledge in the field of chemistry in an everyday life;
- *is able to apply* skills of the organization and statement of chemical experiment (laboratory, demonstration, computer);
- *is capable* to apply knowledge of the general and theoretical chemistry and the physics, fundamental and the applied mathematics for the analysis of the phenomena and processes;
- *is capable* to realize analytical and technological decisions in the field of experimental and theoretical chemistry.

The following **curriculum** is presented:

Chemistry (B)
Major: 5B011200- Chemistry
The academic degree: Bachelor of Education in Chemistry
Duration: 4 years

Table 10 - Working curriculum (WC) **of Chemistry (B)**

Discipline cycle	Discipline code	Name of the discipline	Examination	Number of credits	Course work	Workloadinhours	Lectures	seminar (practicelessons)	Laboratoriallessons	Tutoriallessons	Self-study	1 year		2 year		3 year		4 year	
												1 sem	2 sem	3 sem	4 sem	5 sem	6 sem	7 sem	8 sem
GEM	**I. General educational module (GEM)**			**33***															
GEM RC	***Required component (RC)***			***33****															
GEM RC1	IK 1101	History of Kazakhstan	1	3	135	90	15	30		45	45	6							
GEM RC2	Fil 2102	Philosophy	3	3	135	90	15	30		45	45			6					
GEM RC3	IYa 1103	Foreign language	1,2	6	270	180		90		90	90	6	6						
GEM RC4	K(R)Ya 1104	Kazakh (Russian) language	1,2	6	270	180		90		90	90	6	6						
GEM RC5	Inf 1105	Informatics	1	3	135	90		45		45	45	6							
GEM RC6	EUR 2106	Ecology and Sustainable Development	4	2	90	60	15	15		30	30				4				
GEM RC7	Soc 2107	Sociology	3	2	90	60	15	15		30	30			4					
GEM RC8	Pol 2108	Political sciences	4	2	90	60	15	15		30	30				4				
GEM RC9	ET 2109	Bases of the economic theory	3	2	90	60	15	15		30	30			4					

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GEM RC10	OP 2110	Bases of law	4	2	90	60	15	15		30	30				4				
GEM RC11	OBZ 1111	Bases of life safety	2	2	90	60	15	15		30	30		4						
GEM RC12	FK 1112	Physical culture*	1-4	10*	450 *							3*	2*	3*	2*				
BM2	**II. Base module (BM)**			64*															
BM RC	***Required component (RC)***			***20****															
BM RC1	VPP 1201	Introduction to pedagogical specialty	1	1	45	30	15			15	15	2							
BM RC2	Ped 2202	Pedagogics	3	3	135	90	15	30		45	45			6					
BM RC3	Etn 2203	Ethnopedagogics	4	2	90	60	15	15		30	30				4				
BM RC4	PRCh 1204	Psychology and human development	2	3	135	90	15	30		45	45		6						
BM RC5	Sam 1205	Self-knowledge	2	2	90	60	15	15		30	30		4						
BM RC6	VFSchG 1206	Age physiology and school hygiene	1	2	90	60	15	15		30	30	4							
BM RC7	PK(R)Ya 3207	Professional Kazakh (Russian) language	5	2	90	60	15	15		30	30			4					
BM RC8	POIYa 3208	Professional-oriented foreign language	6	2	90	60	15	15		30	30						4		
BM RC9	MOH 3209	Teaching methods of chemistry	5	3	135	90	15		30	45	45					6			
BM EC	***Elective component (EC)***			***44****															
BM EC 1	VM 1201	Advanced Mathematics	2	2	90	60	15	15		30	30		4						
BM EC 2	Fiz 2202	Physics	3	2	90	60	15	15		30	30			4					
BM EC 3	TONH 1203	Theoretical bases of inorganic chemistry	1	4	180	120	30		30	60	60	8							
BM EC 4	HEPS 1204	Chemistry of periodic system elements	2	4	180	120	30		30	60	60		8						

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BM EC 5	KA 2205	Qualitative analysis	3	3	135	90	15		30	45	45			6					
BM EC 6	KA 2206	Quantitative analysis	4	3	135	90	15		30	45	45				6				
BM EC 7	OHAS 3207	Organic chemistry of aliphatic compounds	5	4	180	120	30		30	60	60					8			
BM EC 8	OHCS 3208	Organic chemistry of cyclic compounds	6	4	180	120	30		30	60	60						8		
BM EC 9	MRZH 2209	Method of problem solving in chemistry	3	2	90	60	15	15		30	30			4					
BM EC 10	MPSHE 3210	Method of school chemistry experiment	5	2	90	60	15	15		30	30					4			
BM EC 11	HS 4211	Chemical synthesis	7	3	135	90	15		30	45	45							6	
BM EC 12	NV 1212	National education	1,2	4	180	120	30		30	60	60	4	4						
Elective component 13 (**)																			
BM EC 13	ZHPS 2213	Tasks on chemistry of the increased complexity	4	3	135	90	15		30	45	45					6			
	HPSV 2213	Chemistry of natural waters and sewage																	
	IGNHA Ya 2213	The selected chapters of inorganic chemistry in English																	
Elective component 14 (**)																			
BM EC 14	HSch 3214	Chemistry at school	5	2	90	60	15		15	30	30					4			
	IH 3214	History of Chemistry																	
	IGFHA Ya 3214	The selected chapters of physical chemistry in English																	
Elective component 15 (**)																			
BM EC 15	STSO 2215	Modern technical educational tools	4	2	90	60	15		15	30	30				4				
	KTUH 2215	Computer technologies on lessons of chemistry																	
	TPHTA Ya 2215	Translation technique of chemical text in english																	
MM 3	**III. Module Majors (MM)**			**32***															
GEM	***General educational module***			***5****															

MM GEM1	TMVR 3301	Theory and technique of educational work	5	2	90	60	15		15	30	30					4			
MM GEM1	HE 3302	Chemical ecology	6	3	135	90	15		30	45	45						6		
EC	***Elective component***			27*															
MM EC1	FH 3301	Physical Chemistry	5	3	135	90	15		30	45	45					6			
MM EC2	KH 3302	Colloidal chemistry	6	3	135	90	15		30	45	45						6		
MM EC3	HT 4303	Chemical technology	7	3	135	90	15		30	45	45							6	
MM EC4	SV 3304	Substance structure	6	2	90	60	15		15	30	30						4		
MM EC5	HVMS 4305	Chemistry of high-molecular molecules	7	2	90	60	15		15	30	30							4	
MM EC6	KH 3306	Computer chemistry	5	2	90	60	15		15	30	30					4			
Elective component 7 (**)																			
MM EC7	FMI 3307	Physical Methods of research in Chemistry	6	2	90	60	15		15	30	30						4		
	MOE 3307	Ecology teaching methodology																	
	IGOHA Ya 3307	The selected chapters of organic chemistry in English																	
Elective component 8 (**)																			
MM EC8	TNS 4308	Technology of petrochemical synthesis	7	3	135	90	15		30	45	45							6	
	MANN 4308	Methods of analysis of oil and oil products																	
	IGHTA Ya 4308	The selected chapters of industrial chemistry in English																	
Elective component 9 (**)																			
MM EC9	Nef 4309	Petrochemistry	7	3	135	90	15		30	45	45							6	
	RH 4309	Radio-ecological chemistry																	
	IHAYa 4309	History of Chemistry in English																	

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Elective component 10 (**)																			
MM EC10	MSS 2310	Metrology, Standardization and certification	4	2	90	60	15		15	30	30				4				
	AVPP 2310	Water analysis and food stuff																	
	IGAHA Ya 2310	The selected chapters of analytical chemistry in English																	
Elective component 11 (**)																			
MM EC11	INP 4311	Making visual aids	7	2	90	60	15		15	30	30							4	
	HAP 4311	Chemistry of atmosphere and soils																	
	TOHAY a 4311	Technology of training of chemistry in English																	
Total of professional courses																			
Additional educational programs					32*	1440*	960*	240*	240*	480*	480*								

VP	Military training			10*	450 *								6*	6*	6*	6*	6*	
	IN TOTAL duringtraining:			129	5805	3870	750	570	615	1935	1935	42	42	38	36	36	32	32
ELECTIVE COURSES	Sem.	cred.	termpapers	2													1	1
Physical culture according to the schedule			Examinations	51								8	8	8	8	7	6	6
Sportssection																		
Office-work (Russian, каз.)	4	1	Educational practice - 8 cred.					Professional practice				Termpapers:						
			Uchebno-issledovatelsky practice-6 the credit - till the 4th week - chemical - 2-4-6 semester.					Pedagogical practice - 6 кред. - 10 weeks. - 8 sem.				1) chemistry - 6 sem 2) Training technique of chemistry (or Training technique of Ecology) - 7 sem.						
			The chemical - the Practice technology - the 2nd credit - the 3rd week.					Through student teaching – 6 cred.-2 weeks. - 2, 3, 4, 5, 6 sem.										
			Externship- 2 week -															

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According to the Self Study Report the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Bachelor's degree programme Geography:

Graduates acquire the following social competence:

- *is able to* form and objectively assess the level of personal ambitions and have the skills to enhance the intellectual development of students;
- *demonstrates* moral principles and ethical behavior;
- *is able to apply* general regulations and methods of social, human and economic sciences to solving social and professional problems;
- logically and correctly *formulates and utters* his/her ideas in mother tongue, *has skills* of oral and written speech in Kazakh (Russian), foreign languages to work with scientific texts and public speaking;
- *applies* the knowledge of foreign language to communication and comprehension of special texts;
- *applies* main methods, ways and means of gaining, storing and processing information; *is able to* work on a computer, including working in the global computer networks;
- *is able to take into consideration* ethnic-cultural and confessional distinctions of the educational process engagers when cooperating socially;
- *realizes* the principles of organization of scientific research, ways of achieving and developing scientific knowledge;
- *is able to develop* skills of healthy life-style in accordance with requirements of hygiene, labor protection and regulations on protection from possible negative influence.

Professional competences are characterized by the fact that a graduate:

- *is able to model* educational process, realize it when teaching;

- *is able to apply* means of considering general, specified (when there are different types of abnormality) mechanisms and individual features of mental and psychophysical development, is familiar with peculiarities of regulating human behavior and activities at different age;
- *can apply* qualitative and quantitative methods of psychological and pedagogical research;
- *is able to apply* methods of diagnosing development, communication, activities of different age children;
- *is able to apply* the knowledge of different theories of teaching, educating and developing, and the educational programs for various level trainees, as well;
- *can apply* the methods of organizing different children activities;
- *knows* the ways of organizing professional activity in multicultural society taking into account peculiarities of socio-cultural structure of the society, also laws and principles of national education;
- *is able to participate* in interdisciplinary and interdepartmental cooperation of the specialists for solving professional problems.

☐ graduate knows the specificity of secondary education, has the means of realization of succession in education of children of various ages;

☐ graduate possesses theoretical bases and geography teaching technologies for students of secondary school;

☐ graduate knows conceptual and theoretical bases of geography, its place in general system of sciences and values, history of development and modern state;

☐ graduate possesses the system of knowledge about fundamental geographical laws and theories, natural essence of phenomenon and processes in nature and economy;

☐ graduate is capable to apply the knowledge of theoretical and research bases of geography and geography teaching technology, possesses the methods of formation of students' subject abilities and skills, possesses the techniques of formation of interest for geography and usage of knowledge at the area of geography in daily life;

☐ graduate is capable to apply the knowledge of general, physical, social and economic geography, fundamental and applied geography for analysis and synthesis of regularities, phenomenon and processes, and also legitimate phenomenon and principles of national education;

☐ graduate is capable to use physical-geographic and economic-geographical methods of research, programming and modern information-communication technologies for solving practical tasks of obtaining, storing, processing and transferring information;

☐ graduate is capable to implement analytical and technological decisions at the area of physical and socialeconomic geography;

☐ graduate possesses the methods of theoretical analysis of the results of observation and research, the methods of computer modeling.

The following **curriculum** is presented:

Geography (B)
Major: 5B011600 - Geography
The academic degree: Bachelor of Education in Geography
Duration: 4 years

Table 11 - Working curriculum (WC) of Geography (B)

Discipline cycle	Discipline code	Name of the discipline	Number of credits	Academic load								Distribution of hours for courses							
				ECTS	Examination	Workload in hours	Contact hours			Tutoriallessons	Self-study	1 year		2 year		3 year		4 year	
							lectures	seminars (practical)	laboratory			1 semester 15 weeks	2 semester 15 weeks	3 semester 15 weeks	4 semester 15 weeks	5 semester 15 weeks	6 semester 15 weeks	7 semester 15 weeks	8 semester 15 weeks
												Week hours							
1		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
General educational module (GEM) - 33 credits (53 ECTS)																			
Required Component (RC) - 33 credits (53 ECTS)																			
GEM RC1	IK 1101	History of Kazakhstan	3	5	1	135	15	30		45	45		6						
GEM RC2	Fil 2102	Philosophy	3	5	3	135	15	30		45	45			6					
GEM RC3	IYa 1103	Foreign language	6	3	1 - 2	270		90		90	90	6	6						
GEM RC4	K(R)Ya 1104	Kazakh (Russian) language	6	10	1 - 2	270		90		90	90	6	6						
GEM RC5	Inf 1105	Informatics	3	5	1	135	15	30		45	45	6							
GEM RC6	EUR 2106	Ecology and Sustainable Development	2	5	4	90	15	15		30	30				4				
GEM RC7	Soc 2107	Sociology	2	3	3	90	15	15		30	30			4					
GEM RC8	Pol 2108	Political sciences	2	3	3	90	15	15		30	30			4					
GEM RC9	OET 2109	Bases of the economic theory	2	3	3	90	15	15		30	30			4					

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GEM RC10	OP 2110	Bases of law	2	3	4	90	15	15		30	30				4				
GEM RC11	OBZh 1111	Bases of life safety	2	3	2	90	15	15		30	30		4						
GEM RC12	FK 1112	Physical culture*			1 - 4							4*	4*	4*	4*				
Base module (BM)- 64 credits (104 ECTS)																			
Required Component - 20 credits (32 ECTS)																			
BM RC1	VPP 1201	Introduction to pedagogical specialty	1	2	1	45	15			15	15	2							
BM RC2	Ped 2202	Pedagogics	3	5	3	135	15	30		45	45			6					
BM RC3	Etn 2203	Ethnopedagogics	2	3	4	90	15	15		30	30				4				
BM RC4	PRCh 1204	Psychology and human development	3	5	2	135	15	30		45	45		6						
BM RC5	Sam 1205	Self-knowledge	2	3	2	90	15	15		30	30		4						
BM RC6	VFSchG 1206	Age physiology and school hygiene	2	3	1	90	15	15		30	30	4							
BM RC7	PK(R)Ya 3207	Professional Kazakh (Russian) language	2	3	5	90	15	15		30	30					4			
BM RC8	POIYa 3208	Professionally oriented english	2	3	6	90	15	15		30	30						4		
BM RC9	MPG 4209	Geography teaching methodology	3	5	7	135	15	30		45	45						6		
Elective Component (EC) - 44 credits (72 ECTS)																			
BM EC 01	NV 1210 AV 1210 OE 1210	National education Abai Fundamentals of ethics	4	7	1,2	180	30	30		60	60	4	4						
BM EC 02	KOT 1211 GOT 1211 GIST1211	Cartography with bases of topography Surveying the basics of Surveying GIS technology	3	5	2	135	15		30	45	45		6						

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BM EC 03	OZ 1212 UGO 1212 MK 1212	General earth science The doctrine of the geographical envelope Meteorology and climatology	3	5	1	135	15		30	45	45		6							
BM EC 04	GOG 2213 PG 2213 ML 2213	Geology with bases of geomorphology paleogeography mineralogy	3	5	3	135	15		30	45	45			6						
BM EC 05	LV 2214 FGR 2214 VFG 2214	Landscape studies Physical-geographical zoning-parameter Introduction to physical geography	3	5	4	135	15		30	45	45				6					
BM EC 06	VESG 3215 EGR 3215 GMP 3215	Introduction to economic and social geography Economic and geographical regionalization Geography of material production	3	5	5	135	15		30	45	45					6				
BM EC 07	BOGP 2216 GROG 2216 GZhOZ 2216	Biogeography with bases of soil geography The geography of plants with the basics of Geo Geography animals with the basics of zoogeography	3	5	3	135	15		30	45	45			6						
BM EC 08	GNOD 3217 GU 3217 GK 3217	Population geography with bases of demography Geourbanistika cultural geography	2	3	5	90	15	15		30	30					4				
BM EC 09	FGK 3218 GPRK 3218	Physical geography of Kazakhstan Geography of natural	3	5	6	135	15		30	45	45					6				

	IIPK 3218	risk in Kazakhstan The history of research on the nature of Kazakhstan																	
BM EC 10	ESGK 3219 GERK 3219 GVSK 3219	Economic and social geography of Kazakhstan The geography of economic regions of Kazakhstan Geography of external economic relations of Kazakhstan	3	5	6	135	15		30	45	45						6		
BM EC 11	FGMO 3220 FGChS 3220 SPFG 3220	Physical geography of continents and oceans Physical geography-rays parts of the world Modern problems of the physical geography	3	5	6	135	15		30	45	45						6		
BM EC 12	ESGM 3221 GChD 3221 SG 3221	Economic and social geography of the world Geography of human activity Social geography	3	5	6	135	15		30	45	45						6		
BM EC 13	GSM 3222 RG 3222 GG 3222	Geography of the modern world Regional geography Global geography	2	3	6	90	15		15	30	30						4		
BM EC 14	FGS 3223 FGCA 3223 FGSG 3223	Physical geography of the CIS The physical geography of Central Asia Physical geography of the neighboring states	2	3	6	90	15		15	30	30						4		

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BM EC 15	ESGS 4224 GTGS 4224 MRO 4224	Economic and social geography of the CIS The geography of the states of Turkic CIS International and regional organizations of the CIS	2	3	7	90	15		15	30	30							4	
BM EC 16	OShG 4225 IMG 4225 SMOG 4225	Bases of school geography Innovative methods in geography The content and methods of teaching geography	2	3	7	90	15	15		30	30							4	
Module majors (MM) - 32 credits (52 ECTS)																				
Required Component - 5 credits (8 ECTS)																				
MM RC 01	TMVR 3301	Theory and technique of educational work	2	3	5	90	15	15		30	30						4			
MM RC 02	Est 2302	Natural science	3	5	4	135	15		30	45	45				6					
Elective component - 27 кредитов (44 ECTS)																				
MM EC 01	TOT 4303 TOE 4303 TOOE 4303	Technology of tourism teaching Technology Learning Environment Technology Learning the basics of economics	2	3	7	90	15	15		30	30					4				
MM EC 02	RG 2304 EK 2304 VB 2304	Recreational geography Environmental Nandigram Introduction to Business	2	3	4	90	15	15		30	30				4					
MM EC 03	OTK 2305 EIOV 2305	Bases of tourism and study of local lore Environmental education and training	2	3	4	90	15	15		30	30				4					

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	EOV 2305	Economic education and training																	
MM EC 04	ITO 4306 GOP 4306 GIP 4306	Tourism infrastructure and leisure Geo-ecology and conservation Geo-economics and integration processes	2	3	7	90	15	15		30	30							4	
MM EC 05	DUT 3307 EM 3307 ES 3307	Child and youth tourism Environmental Monitoring Economic Statistics	3	5	5	90	15	15		30	30					4			
MM EC 06	TTT 2308 UB 2308 ORP 2308	Technique and tactics tourism The doctrine of the biosphere Basics of regional planning	3	5	3	135	15	15		45	45			6					
MM EC 07	OT 3309 TOEI 3309 GOUUR 3309	Bases of tourismology Theoretical foundations of ecology Geographical bases of governance and sustainable development	3	5	5	135	15	30		45	45					6			
MM EC 08	GH 4310 GE 4310 SPGE 4310	Hotel business Global Ecology Strategic planning and government regulation of the economy	2	3	7	90	15	15		30	30							4	
MM EC 09	MMT 3311 EPRKS 3311 PGOG 3311	Tourism management and marketing Environmental problems of the CIS and Kazakhstan Political Geography of the fundamentals of	2	3	5	90	15	15		30	30					4			

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		geopolitics																	
MM EC 10	Eks 3312 EIPP 3212 EPP 3212	Excursion studies Ecology nature Economics of Nature	3	5	5	135	15	30		45	45					6			
MM EC 11	PT 4313 EE 4313 EPP 4313	Entrepreneurship in Tourism Environmental impact assessment Business Economics and Entrepreneurship	2	3	7	90	15	15		30	30						4		
MM EC 12	Top 4314 GT 4314 ZG 4314	Toponymics Geographical terminology Interesting geography	2	3	7	90	15	15		30	30						4		
TOTAL (theoretical training), KZ			129			5805	735	525	390	1935	1935	40	36	38	36	38	36	34	
Practice KZ			29									1	4	1	4	1	4		14
Final certification KZ			4																4
TOTAL (all on EP) KZ			162									30	30	30	31	30	31	30	31

PRACTICE	Credits
Topographic	1
Physiographic	5
Economic and geographic	3
Interzonals of complex	8
Continuous teaching	6
Teaching professional	6

Final state certification	Credits	Semester
State examination in the specialty	2	8
Defending diploma work	2	8

Semesters	1	2	3	4	5	6	7
Examinations	8	7	7	8	8	7	8

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According to the Self Study Report the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Master's degree programme Biology:

Graduates acquire the following competencies

- *ability* to understand the patterns of forming and developing scientific knowledge as a cultural phenomenon;
- *the ability* to understand new conceptual ideas and trends of pedagogical science in relation to the modern paradigm of education;
- *ability* to understand the main categories of researching that allow to analyse contemporary issues of pedagogics;
- *ability* to manage research methodology;
- *ability* to distinguish the general, particular and specific aspects of the process of scientific research in the field of education;
- *the ability* to understand the interrelation of the methodological, theoretical and applied levels of the scientific research on pedagogics;
- *is capable* to develop an actual scientific problem and obtain knowledge, significant developing of the theory and higher education practice;
- *owns* a modern methodology and research methods, the ability to modify them for the research objectives in the field of higher education;
- *is able* to design and put into practice the content of academic subjects of biological cycle and the education process with the modernization of higher education;

- *is capable* of carrying out independent research, natural science experiment, the use of information technology for solving scientific and professional problems, the analysis and evaluation of the results of laboratory and field researches;
- *is able* to assess the impact on the environment, to detect and diagnose problems of of nature protection and the interaction system between society and nature, to solve biological and environmental problems associated with sustainable development;
- *is capable* of reviewing and analyzing materials on higher education;
- *is able* to present the results of their research in the form of reports, essays, articles, reports, internet publications, reports on the problems of higher education.

The following **curriculum** is presented:

Biology (M)

Major: 6M011300- Biology
Final degree: Master of pedagogical sciences of Biology
Duration: 2 years

Table 12 - Working curriculum (WC) **of Biology (M)**

List of Modules										
Seq. No.	Module	Credit (ECTS)	Semester	Total Hours	Total Class Hours	Lectures	Seminars	Laboratory Work	Guided Self-Study	Self-Study
Base module (BM)		**16(40)***								
General Educational Module (GEM)		*9 (23)*								
1	History and science philosophy	2 (5)	1	150	30	15	15	-	45	75
2	Foreign language	3 (8)	1	225	45	30	15	-	60	120
3	Pedagogics	2 (5)	1	150	30	15	15	-	45	75
4	Psychology	2 (5)	1	150	30	15	15	-	45	75
Required module on speciality Elective component 1										
5	Elective Module 1 The organisation and planning of scientific researches	2 (5)	1	150	30	15	15	-	45	75
6	Elective Module 2 New educational technologies of training of biology	3 (8)	2	225	45	30	15	-	60	120
7	Elective Module 3 Biology and sustainable development	2 (5)	2	150	30	15	15	-	45	75
Required module on speciality Elective component 2										
8	Innovative processes in education	2 (5)	1	150	30	15	15	-	45	75
9	Methodological problems of modern biology	3 (8)	2	225	45	30	15	-	60	120
10	Pedagogical aspects of studying of biology	2 (5)	2	150	30	15	15	-	45	75
Module Majors (MM) - 1		**18 (45)***								
Required component										
11	Evolutionary biology	2 (5)	2	150	30	15	15	-	45	75
Elective Module on speciality										
12	Structure and function of biocenos	2 (5)	2	150	30	15	15	-	45	75
13	Biological safety	2 (5)	2	150	30	15	15	-	45	75
14	Environment and biodiversity	3 (8)	3	225	45	15	15	15	60	120
15	Biology of water systems	3 (8)	3	225	45	15	15	15	60	120
16	Global problems of biosphere	3 (8)	3	225	45	30	15	-	60	120
17	Theoretical Biology	3 (8)	3	225	45	15	15	15	60	120
	Total	**34 (85)***		2550	510	300	210	150	720	1320

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	Internship									
	Teacher's (high school) practice module	6 (15)	3-4							
	Science-research practice module	7 (28)	1-4							
	State Exam, Final Thesis	4 (12)								
	Grand Total	51 (140)								

*To transfer Kazakh ECTS credits used conversion factor 2.5.

According to the Self Study Report the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Master's degree programme Chemistry:

Graduates acquire the following competencies (PC)
- *owns* modern methods of research used in the field of education and are able to modify them for the objectives of a specific investigation;
- *is able* to use the knowledge of the different theories of learning, training and development, as well as educational programs for students of different levels of education;
- *is capable of learning*, result-oriented and mobility that will help students develop competencies necessary for them to adapt to a changing labor-market, and that will enable them to become active and responsible citizens;
- *owns* the basics of scientific and methodological work in educational institutions and are willing to design and put into practice the new content of school subjects;
- *owns* bases of scientifically-methodical work in educational institutions;
- *able to* make an original contribution to the subject area of chemistry in accordance with its professional rules, in the frame of qualified work.
- *is ready* for independent research and participation in active research groups;
- *owns* the latest techniques and technology studies, and contemporary theories and their interpretation, are able to critically reflect upon the development of theory and practice in the field of chemistry.

The following **curriculum** is presented:

Chemistry (M)
Major: 6M011200- Chemistry
Final degree: Master of pedagogical sciences of Chemistry
Duration: 2 years

Table 13 - Working curriculum (WC) of Chemistry (M)

List of Modules										
Seq. No.	Module	Credit (ECTS)	Semester	Total Hours	Total Class Hours	Lectures	Seminars	Laboratory Work	Guided Self-Study	Self-Study
Basic Module (BM)		**16 (40)***								
General educational Module (GEM)		*9 (23)*								
1	History and science philosophy	2 (5)	1	150	30	15	15	-	45	75
2	Foreign language	3 (8)	1	225	45	30	15	-	60	120
3	Pedagogics	2 (5)	1	150	30	15	15	-	45	75
4	Psychology	2 (5)	1	150	30	15	15	-	45	75
Elective module										
5	*Elective Module I* Planning, organization scientific research and methods consisting and solve the problem	3(8)	1	225	30	15	60	-	60	120
6	*Elective Module II* Computer technologyin study process	2(5)	2	150	15	15	-	45	45	75
7	*Elective Module III* Method of studing chemistry in English	2(5)	2	150	15	15	45	-	45	75
Module Majors		**18(45)***								
8	*Required component* Methodic aspects of teaching organic and high molecular compounds	2(5)	2	150	15	15	45	-	45	75
Elective Module										
9	*Elective Module I* Modern technology ond method teaching of general and inorganic chemistry	2(5)	2	150	15	15	45	-	45	75
10	*Elective Module II* Modern method bases of teaching physical and colloid chemistry	2(5)	2	150	15	15	45	-	45	75
11	*Elective Module III* Selected chapters from quantum mechanics to chemistry	3 (8)	3	225	30	15	60	-	60	120
12	*Elective Module IV* Applied aspects of modern organic chemistry	3 (8)	3	225	30	15	-	60	60	120
13	*Elective Module V* Physical chemistri of polymers	3 (8)	3	225	30	15	-	60	60	120
14	*Elective Module VI* Theoretical and applied bases of modern ecology	3 (8)	4	225	30	15	-	60	60	120
	Total	**34 (85)***								
	Internship									
15	Pedagogical practice module	3 (3)								
	Science-research practice module	3 (12)								
16	Science-research practice module	7 (28)								
	State Exam, Final Thesis	4 (12)								
	Grand Total	**51 (140)**								

*To transfer Kazakh ECTS credits used conversion factor 2.5.

According to the Self Study Report the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Master's degree programme Geography:

Graduates acquire the following competencies:
- *is able* to understand the patterns of formation and development of scientific knowledge as a cultural phenomenon;

- *is able* to understand new conceptual ideas and trends of pedagogical science in relation to the modern paradigm of education;
- *is able* to understand the main categories of researching that allow to analyse contemporary issues of pedagogics;
- *is able* to manage research methodology;
- *is able* to distinguish the general, particular and specific aspects of the process of scientific research in the field of education;
- *is able* to understand the interrelation of the methodological, theoretical and applied levels in scientific research on pedagogy;
- *is able* to relate the basic scientific concepts of pedagogy from the common problems of science and society*;*
- *Is able* to develop a topical scientific issues and obtaining knowledge, significant for the development of the theory and practice of higher education, as well as conducting comprehensive geographic research on branch, regional, national and global issues;
- *owns* the modern methodology and research methods, the ability to modify them for the objectives of research in the field of higher education;
- *is able* to design and put into practice the content of academic subjects and geographical cycle and the education process with the modernization of higher education;
- is *capable* of carrying out independent researches, natural science experiment, the use of information technology for solving scientific and professional problems, the analysis and evaluation of the results of laboratory and field researches;
- *is able* to assess the impact on the environment, to detect and diagnose problems of nature protection and the interaction system between society and nature, to solve environmental problems associated with sustainable development;
-*is capable* of reviewing and analyzing materials on higher education;
- *is able* to present the results of their research in the form of reports, essays, articles, reports, internet publications, reports on the problems of higher education.

The following **curriculum** is presented:

Geography (M)
Major: 6M011600- Geography
Final degree: Master of pedagogical sciences of Geography
Duration: 2 years

Table 14 - Working curriculum (WC) **of Geography (M)**

Seq. No.	Module	Credit (ECTS)	Semester	Total Hours	Total Class Hours	Lectures	Seminars	Guided Self-Study	Self-Study
Basic Module (BM)		**16 (40)***							
General educational Module (GEM)		*9 (23)*							
1	History and science philosophy	2 (5)	1	150	30	15	15	45	75
2	Foreign language	3 (8)	1	225	45	30	15	60	120
3	Pedagogics	2 (5)	1	150	30	15	15	45	75
4	Psychology	2 (5)	1	150	30	15	15	45	75
Elective module									
5	*Elective Module* The organisation and planning of scientific researches	2(5)	1	150	30	15	15	45	75
6	*Elective Module* Theoretical geography and the concept of a sustainable development of a modern science	2(5)	2	150	30	15	15	45	75
7	*Elective Module* Procedure of teaching of geography in high schools	3 (8)	3	225	45	30	15	60	120
Module Majors		**18(45)***							

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8	*Required component* Contemporary problems of physical and economical geography	3(8)	2	225	45	30	15	60	120
Elective Module									
9	*Elective Module I* Bases of the seismic analysis in geography	2(5)	2	150	30	15	15	45	75
10	*Elective Module II* Methodology of a geographycal science	2(5)	2	150	30	15	15	45	75
11	*Elective Module III* Contemporary problems of making up of tolerance at preparation of specialists-geographers in high schools	2 (5)	2	150	30	15	15	45	75 75
12	*Elective Module IV* Map provision of research activities	2(5)	3	150	30	15	15	45	75
13	*Elective Module V* Geo-ecological aspects natural - anthropogenic systems	3(8)	3	225	45	30	15	60	120
14	*Elective Module VI* Modelling and prognostication in geography	2(5)	3	150	30	15	15	45	75
	Elective Module VII Priority directions of a modern geographical science	2(5)	3	150	30	15	15	45	75
	Total on theoretical study	34 (85*)							
	Internship								
	Pedagogical practice	3 (3)							
	Scientific practice	3 (12)							
	Scientific work	7 (28)							
	Final state certification								
	Comprehensive exam	1(3)							
	Presenting thesis	3(9)							
	Grand Total	**51 (140)**							

*To transfer Kazakh ECTS credits used conversion factor 2.5.

C Peer Report for the ASIIN Seal

1. The Degree Programme: Concept, content & implementation

Criterion 1.1 Objectives and learning outcomes of a degree programme (intended qualifications profile)

Evidence:

- Self Study Report
- Objectives Matrix
- Discussions with programme coordinators

Preliminary assessment and analysis of the peers:
The auditors found the objectives and intended learning outcomes of all three Bachelor's and Master's degree programmes to be very comprehensive and well founded, in terms of subject specific contents as well as in terms of pedagogical knowledge and skills. The objectives and learning outcomes of the programmes are well-anchored and binding; they are publicly available and accessible for all relevant stakeholders. However, the peers found that the learning outcomes are not included in the Diploma Supplement and pointed out to the HEI that this has to be corrected (see C-5-2).

The peers judged the intended learning outcomes of al degree programmes to reflect the level of academic education aimed at. They are equivalent to the learning outcome examples described in the ASIIN Subject-Specific Criteria of the Technical Committees 09 – Chemistry, 10 – Life Sciences, and 11 – Geosciences respectively. The intended learning outcomes do also appropriately reflect the pedagogical qualification of a middle school teacher.

The auditors learned from the programme coordinators that approximately 80% of the graduates work as school teachers. For grant holders it is obligatory to work for three years as a teacher after graduation. The rest of the graduates seek employment in the industries. In 2017 the duration of school will be extended by one year. This means that teachers will need a higher level and qualification. Therefore, from 2017 onwards the Master's degree will be the precondition for becoming a school teacher in Kazakhstan. Accordingly, the ministry of education will increase the number of grants for the Master's

degree programmes Biology, Chemistry, and Geography by an appropriate degree. The numbers are not fixed yet, but will be decided upon by the ministry in due course.

Besides the career as a school teacher, graduates from the Master's degree programmes can choose a scientific career path at the university. Therefore, the Master's degree programmes have two branches, a pedagogical with aim for the teaching career, and a scientific with aim at a research oriented career.

The auditors found that the intended qualifications profiles allow the students to take up an occupation which corresponds to their qualification.

Criterion 1.2 Name of the degree programme

The degree programme name reflects the intended aims and learning outcomes as well as, fundamentally, the main course language.

Evidence:

- Self Study Report

Preliminary assessment and analysis of the peers:

The peers found that the names of the Bachelor's and Master's degree programmes Biology, Chemistry, and Geography reflect the intended aims and learning outcomes as well as the main course language.

Criterion 1.3 Curriculum

Evidence:

- Self Study Report
- Objectives Matrix
- Module descriptions
- Curricular Overviews

Preliminary assessment and analysis of the peers:

The audit team perceived that safety regulations in the degree programmes Biology and Chemistry are not up to international standards and that corresponding content is not mentioned for the curricula. The programme coordinators explained that at the beginning of every semester a safety lessons has to be attended by all students of the respective degree programmes. If working with potentially harmful substances the students have to wear protective suits and other equipment. Before field work the students receive a compulsory security instruction, too. If needed, the students undergo a health examination and vaccination before field training (for the Geography programmes). Potentially

harmful waste is collected in the laboratories and processed according safety regulations. Jars and containers with potentially harmful substances are marked for the students. The programme coordinators declared that they know the international system of marking containers with hazardous substances, but that they are obliged by the ministry to use the national system. For the Biology programme, the HEI does not raise animals for teaching or researching purposes. The students go on excursions to watch animals in free wildlife. The HEI is also working together with a station for young natural scientists, where students can learn about wildlife and animals. The auditors noted that the HEI is working on the implementation of adequate safety standards. They recommended to the HEI to further develop the existing safety practices in the laboratories according to international standards and accepted practices.

With respect to the part elective modules play in the curriculum the auditors were not able on the ground of the provided information to discern how many electives when in the course of the curricula can be chosen, and if the choice of electives is in any form restricted or regulated content wise. The placement of the practical work within the curricula was also not clear. Therefore, the peers asked the HEI to provide samples of individual study plans for each degree programme including the placement of the practical work and the electives in the curricula along with the commentary of the HEI to the audit report.

Otherwise the peers judged that the overall objectives and intended learning outcomes for the degree programme are systematically substantiated and updated in its individual modules. It is clear which knowledge, skills and competences students will acquire in each module.

Criterion 1.4 Admission requirements

Evidence:

- Self Study Report
- Appendix 4 – admission rules
- Discussion with the programme coordinators

Preliminary assessment and analysis of the peers:
The peers noted that nationwide rules for the application and admission of students do apply. They found that the requirements and procedures are binding, transparent and the same for all applicants.

In the view of the auditors, the admission requirements are structured in a way that supports the students in achieving the learning outcomes.

Upon request of the auditors the programme coordinators explained that rules are in place for the compensation of admission requirements that have not been fully met by the applicant.

The peers wondered why there are relatively few places for Master's students in the degree programmes. The programme coordinators explained that this will change in the future, when from 2017 onward the Master's degree will be needed to work as a school teacher. Until then a Bachelor's degree suffices.

The auditors were informed that the number of students in the Geography programme has declined during the last few years, because about five years ago there had been a peak in the number of Geography students, followed by a dampening of job market opportunities and subsequently by dropping numbers in applications. Besides, graduates from the Biology and Chemistry programmes are more easily able to find a job outside school, which leads to a comparatively higher number of students in these disciplines.

Final assessment of the peers after the comment of the Higher Education Institution regarding criterion 1:

The auditors appreciate the intention of the Kazakh National Pedagogical University to develop and to introduce a diploma supplement that includes the qualification profile of the graduates. They also notice, that a list of elective subjects is being prepared and afterwards posted on the website of the university. The auditors think, that the planned introduction of individual study plans for each degree programme is very useful.

2. The degree programme: structures, methods and implementation

Criterion 2.1 Structure and modules

Evidence:

- Self Study Report
- Objectives Matrix
- Module Descriptions
- Appendices 1 and 2

Preliminary assessment and analysis of the peers:
The peer panel saw the modularization of the degree programmes generally as sound and well described. The curricula are comprehensive, well implemented, and up to European or International standards, both in terms of contents and of structure.

The auditors noted that it is possible for the students to spend a semester at another HEI or abroad without loss of time. Rules for the recognition of achievements obtained at a HEI abroad or at another national HEI are in place. The auditors were informed that in the year of the audit 15 students of the degree programmes spend one semester at a foreign university.

The audit panel asked about the placement of the internships within the curricula. The programme coordinators explained that there is an internship in the fourth semester at a school for pedagogical practice and a ten-week internship during the eighth semester in the industry. The peers pointed out, that the placement of the practical work within the curricula was not clearly discernible from the provided documentation (see above C-1-3). Therefore, the peers asked the HEI to provide samples of individual study plans for each degree programme including the placement of the practical work and the electives in the curricula along with the commentary of the HEI to the audit report.

Criterion 2.2 Work load and credits

Evidence:

- Self Study Report
- Objectives Matrix
- Module Descriptions
- Appendices 1 and 2

Preliminary assessment and analysis of the peers:

The students explained to the peers their average workload per week and expressed their opinion that they consider the workload as demanding but feasible. They stated that they feel well informed and supported. The teaching staff gave a similar estimation of the students' workload as the students themselves. The peers recognized that the HEI has a reliable picture of the students' workload, and that the workload is within the range of national regulations. However, in the view of the ASIIN criteria and international standards, the workload is much too high and could lead to structural pressure on the students, what in turn could impede the attainment of the intended learning outcomes.

The peers noted that a credit point system is in place. However, the peers found the calculation and distribution of ECTS to be not easily understandable. They noted that the

number of hours allocated to one credit point is very high and differs between the Bachelor's and the Master's degree programmes. The programme coordinators explained that this is the case in the Kazakh credit point system, which calculates a higher workload for Master's students. In future the calculation and application of credit points in Kazakhstan will be switched to the ECTS. The peers noted that the inconsistencies of the national credit point system lead to inconsistencies in the calculation and allocation of ECTS, too. The peers deemed it necessary to correct the calculation and distribution of credits.

The peers noted further that the allocation of credits to the graduation thesis seems to be very low in case of the Bachelor's degree programmes. In the Bachelor's degree programmes only 2 Kazakh credits are allocated to the graduation thesis. In the Master's degree programmes it is 11 (7 for laboratory work, 4 for writing and defence of the thesis). While the number of credits for the Master's degree programmes' graduation project seems adequate, the peers opined that for the Bachelor's degree programmes the amount of credits does not properly reflect the graduation thesis' workload.

In summery the peers came to the conclusion that student workload must be adjusted and balanced throughout the course of the study in order to avoid structural pressure on teaching und learning quality. The quality management system must ensure that student workload and ECTS correspond. This needs also to apply to the Bachelor's thesis.

Criterion 2.3 Teaching methodology

Evidence:

- Self Study Report
- Module Descriptions
- Discussions with teachers and students

Preliminary assessment and analysis of the peers:

The peers perceived that teaching methods and tools support the achievement of the learning outcomes at the intended level. The peers lauded the modern pedagogical approach in the pedagogical Bachelor's and Master's degree programmes and found the modules described and the methods used to be of a good standard. The auditors judged the practical work at schools to be a very helpful aspect for the training of students in the pedagogical degree programmes.

The peers could not discern the complete number of elective courses and their function and placement in the degree programmes. The peers pointed out the importance of elective modules for the attainment of the intended learning outcomes and asked the HEI to provide samples of individual study plans for each degree programme including the

placement of the practical work and the electives in the curricula along with the commentary of the HEI to the audit report.

The peers asked about the teaching and use of English language in the degree programmes. The programme coordinators and teachers declared, that most of the modules are taught in Kazakh or Russian, but that some modules are available in English language, too. Besides the English language course in the first year, there are more English lessons in later semester. Additionally there are multi-lingual study groups at the HEI with more English learning three times a week. The peers lauded the many English language components for basically non-English language degree programmes as a good means for the students to improve their international skills.

For the Bachelor's degree programme Chemistry the auditors found the number of practical work to be somehow limited, while all in all still at an acceptable level. The teaching staff informed the auditors that many experiments are conducted virtually to compensate for the shortcoming in real laboratory exercise. While the peers acknowledged that virtual experiments can play a certain role in the education of the students, they still expressed their belief, that only real experiments and laboratory work can teach the whole scope of necessary skills in full. They therefore recommended to the HEI to intensify real practical work in the laboratories and not to conduct too many experiments only virtually.

Criterion 2.4 Support and assistance

Evidence:

- Self Study Report
- Discussion with students and teaching staff

Preliminary assessment and analysis of the peers:

The students informed the peers that there is a system of students' advisors in place. Advisors support the students in managing their study plans and lend assistance in all kinds of study related questions. The peers noted approvingly the good relationship of trust and cooperation between students and teaching staff. The peers found that sufficient resources are available for offering individual support, supervision and advice to students. The advisory methods are suitable in the view of the peers for supporting students to achieve the learning outcomes and to complete their degree within the normal period of time.

Final assessment of the peers after the comment of the Higher Education Institution regarding criterion 2:

The auditors take into consideration, that the conversion factor from Kazakhstan credits into ECTS has been set to 1.5 to 1.8 for undergraduate and graduate students. They also notice that the university tries to balance the student workload throughout the course of the degree programme. The auditors are pleased, that samples of individual study plans including the placement of the practical work and chosen electives are provided by the university. The auditors were concerned about the extent of real practical work in a laboratory, the university explains, that most of the experiments are conducted in a laboratory, only around 10% of the courses are held virtually.

3. Exams: System, concept and organisation

Criterion 3 Exams: System, concept and organisation

Evidence:

- Self Study Report
- Appendices 8-11
- Discussion with programme coordinators and teachers

Preliminary assessment and analysis of the peers:

The peers asked the HEI representatives to explain the examination organization. They learned that every grade consists of the evaluation of students' progress during the term and the final examination at the end of the module. The final examination counts for 40% of the total grade for a module. The final exams are sometimes conducted in various forms. Oral exams are applied in a number of modules, and are always held by another teacher than the one normally holding the class. Tests are PC based; written exams are organized by the administration and are controlled on an anonymous basis. If a student fails to pass a module he can take the exams again at the next possible opportunity. If a student's marks are overall good he may proceed in his course of studies albeit having failed to take an exam, but he has to retake the exams as soon as possible. A detailed examination plan is handed out to the students at the start of each semester. Nearly all of the students finish their programme in the regular time frame.

The students showed themselves satisfied with the number, content, organization, and difficulty of examinations. The peers were informed by the students that drop-out rates are low. The students confirmed that they get all relevant information concerning exams

on time in printed matter. Examination regulations are handed out to freshmen at the beginning of their studies and are publicly available at the library.

The peers inspected a sample of examination papers and Bachelor's as well as Master's theses. They gained the impression that the overall quality of the samples reflects the level of the Bachelor's and Master's degree respectively.

The peers came to the conclusion that the ASIIN criteria regarding the examinations system, concept, and organization are all fulfilled.

Final assessment of the peers after the comment of the Higher Education Institution regarding criterion 3:

The peers consider the criteria to be fulfilled.

4. Resources

Criterion 4.1 Staff

Evidence:

- Self Study Report
- Staff handbook
- Discussion with teachers

Preliminary assessment and analysis of the peers:

In Kazakhstan, there are clear requirements set by the Ministry of Education and Science for the qualification of teachers for every level of programmes (at least Master's graduate for teaching Bachelor's students as Senior lecturer, PhD graduates for teaching in master's programmes; teaching staff for the educational branches must be candidates of education). These rules apply also for the HEI. The peers were informed that of the total of 977 teachers at the HEI 62% hold a doctorate or PhD. Most of the teachers speak Russian as well as Kazakh. Therefore, the parallel offering of Russian and Kazakh language courses is no resource problem for the HEI. There are special programmes in existence to invite foreign lecturers from different countries, e.g. from Germany, Lithuania, Poland, Turkey, Italy, or Russia. For the HEI around 50 foreign lecturers are staying at the HEI at the time of the audit visit. The professors stated towards the auditors that they have enough time to conduct their own research. The panel deemed the staff qualification to be adequate for maintaining the programmes. The panel judged that the student-professor ratio allows for individual support of learning activities and the human resources to be sufficient for adequate implementation of the programmes under review.

Criterion 4.2 Staff development

Evidence:

- Self Study Report
- Discussion with the teaching staff

Preliminary assessment and analysis of the peers:
The peers found that the teaching staff of the HEI has ample opportunities for further developing their professional and teaching skills, and that the teaching staff uses these opportunities frequently and on a regular basis.

Criterion 4.3 Funds and equipment

The available funds and equipment form a sound and solid basis for the degree programme including:

→ guaranteed funds

→ sufficient and high-quality infrastructure

→ solid, binding rules for all internal and external cooperations.

Evidence:

- Self Study Report
- Discussion with representatives of the rectorate and the programme coordinators

Preliminary assessment and analysis of the peers:
As already has been pointed out in C-1-3, the audit team perceived that safety regulations in the degree programmes Biology and Chemistry are not up to international standards During their visit of the laboratories of the Biology and Chemistry degree programmes the peers observed, that safety installations, e.g. for rinsing the eyes after contact with harmful substances were missing, that the location of fire extinguishers or first aid kits were not clearly indicated, and that students and teachers were working at experiments without the necessary equipment (e.g. protective glasses). The programme coordinators explained the security measures and regulations of the HEI, and the auditors noted that the HEI is working on the implementation of adequate safety standards. They recommended to the HEI to further develop the existing safety practices in the laboratories according to international standards and accepted practices.

The peers convinced themselves of the generally sufficient level of resources, rooms, laboratories, and equipment for the degree programmes. Only for the basic courses in the Bachelor's degree programme Chemistry the peers took the view that the equipment

used was not up to modern standards. They therefore recommended to the HEI to modernize the laboratory equipment for the basic courses. The students expressed their general satisfaction with the resources and conditions of studying in the three degree programmes thereby confirming the generally positive impression of the peers.

Final assessment of the peers after the comment of the Higher Education Institution regarding criterion 4:

The auditors are pleased, that the university constantly modernizes the laboratory equipment and that the purchase of GIS-technologies, spectral instruments and a portable IR spectrometer is planned.

5. Transparency and documentation

Criterion 5.1 Module descriptions

Evidence:

- Self Study Report
- Module Descriptions

Preliminary assessment and analysis of the peers:

The auditors found that the module descriptions are accessible to all students and teaching staff. The module descriptions contain all the necessary information as prescribed by the ASIIN criterion. The peers deemed the module descriptions of a general good quality. The auditors pointed out to the HEI that some changes and corrections still have to been made: the module descriptions must contain information about the type of examination for each module; the workload for the module "Internship (pedagogical)" has to be added; the workload and number of hours for the modules "Education – field practice (zoology)" and "Training field practice botany" have to be added, and it is to be made clear if these two modules are mandatory or elective; the whole module handbook should be searched for mistakes and be corrected accordingly.

Criterion 5.2 Diploma and Diploma Supplement

Evidence:

- Self Study Report
- Sample Diploma Supplement
- Sample Transcript of Records

Preliminary assessment and analysis of the peers:
The peers noted that a diploma is issued after graduation together with a Diploma Supplement printed in English language. These documents provide information about the individual modules, the grades achieved, the final mark and the calculation of the final mark. Information about the student's qualification profile (in terms of the aims of the degree programme) and the classification of the degree programme with regard to its applicable education system are lacking. Statistical data as set forth in the ECTS Users' Guide to allow readers to categorise the individual result is also not included in the documents. The auditors pointed out towards the HEI that this missing information has to be included in the Diploma Supplement.

Criterion 5.3 Relevant rules

Evidence:

- Self Study Report
- Appendices

Preliminary assessment and analysis of the peers:
The peers judged that the rights and duties of both the higher education institution and students are clearly defined and binding. All relevant course-related information is available in the language of the degree programme and accessible for anyone involved.

Final assessment of the peers after the comment of the Higher Education Institution regarding criterion 5:

The peers consider the requirements of the criterion as partly fulfilled. The workload for the modules "Internship (pedagogical)", Education – field practice (zoology)" and "Training field practice botany" have been added. The module handbook still must be corrected.

6. Quality management: quality assessment and development

Criterion 6 Quality management: quality assessment and development

The programme is subject to regular internal quality assessment procedures aiming at continuous improvement. All responsibilities and mechanisms defined for the purposes of continued development are binding.

Students and other stakeholders take part in the quality assurance process. The outcomes and all measures derived are made known to anyone involved. All methods employed and data analysed

are suitable for the purpose and used to continue improving the degree programme, especially with a view to identifying and resolving weaknesses. To this end, the information they provide includes:

- whether the intended learning outcomes required to obtain the degree have been achieved;
- the academic feasibility of the degree programme;
- student mobility (abroad, where applicable);
- how the qualifications profile is accepted on the labour market;
- the effect of measures in use to avoid unequal treatment at the higher education institution (if any).

Evidence:

- Self Study Report
- Appendix 13

Preliminary assessment and analysis of the peers:

The peers judged that that a quality assurance concept is in place, is regularly further developed, and is designed to ensure the continual improvement of the degree programmes.

The Students expressed their view to the peers that they cannot participate in quality assurance activities and the further development of the degree programmes beyond the introduced measure of teaching evaluation, since the Ministry of Education is responsible to fulfil these tasks. Still, the students feel that their needs and concerns are taken into account by the department and HEI. The peers noted the high level of identification of the students with the HEI and the degree programmes. The students expressed their conviction of the high quality of the degree programmes.

The evaluation of lectures is conducted on a regular basis. The results of the evaluation are checked by the rectorate and published on the internet. If the teaching performance of a professor is lacking, there are talks with the HEI leadership, and the participation in didactical courses is proposed. Students were generally satisfied with the organization, conduct, and responsiveness of the evaluation system. Feedback loops are closed.

The peers came to the conclusion that generally mechanisms and scopes of responsibility have been determined to ensure the regular further development of degree programmes.

Final assessment of the peers after the comment of the Higher Education Institution regarding criterion 6:

The peers consider the criteria to be fulfilled.

D Additional Documents

Before preparing their final assessment, the panel ask that the following missing or unclear information be provided together with the comment of the Higher Education Institution on the previous chapters of this report:

D 1. Sample of an individual study plan for each degree programme including the placement of the practical work in the curricula.

E Comment of the Higher Education Institution (08.05.2015)

The institution did not give a statement on the accreditation report, but provided additional documents on the following issues:

- improved Module descriptions
- sample of an individual study plan for the Bachelor's program in Biology
- sample of an individual study plan for the Bachelor's program in Chemistry
- sample of an individual study plan for the Bachelor's program in Geography
- sample of an individual study plan for the master's program in Biology
- sample of an individual study plan for the master's program in Chemistry
- sample of an individual study plan for the master's program in Geography

F Summary: Peer recommendations (25.05.2015)

Taking into account the additional information and the comments given by the HEI the peers summarize their analysis and **final assessment** for the award of the seals as follows:

Degree Programme	ASIIN-seal	Subject-specific label	Maximum duration of accreditation
Ba Biology	Accredited with requirements	n.a.	30.09.2020
Ma Biology	Accredited with requirements	n.a.	30.09.2020
Ba Chemistry	Accredited with requirements	n.a.	30.09.2020
Ma Chemistry	Accredited with requirements	n.a.	30.09.2020
Ba Geography	Accredited with requirements	n.a.	30.09.2020
Ma Geography	Accredited with requirements	n.a.	30.09.2020

Requirements

For all degree programmes

A 1. (ASIIN 5.1) The module descriptions must be updated according to the comments made in the accreditation report (type and duration of examination, credit points, definition of terminology used, description of learning outcomes and contents, eradication of mistakes).

A 2. (ASIIN 2.2) Student workload must be adjusted and balanced throughout the course of the study in order to avoid structural pressure on teaching and learning quality. The quality management system must ensure that student workload and ECTS correspond. This needs also to apply to the Bachelor's thesis.

A 3. (ASIIN 5.2) A programme-specific Diploma Supplement has to be prepared and handed out to students on a regular basis providing information about the objectives, intended learning outcomes, structure and level of the degree, as well as about an individual's performance. It must also explain the educational system of

Kazakhstan in order to foster comprehensibility and comparability between the educational systems.

Recommendations

For the Bachelor's and Master's degree programmes Biology and Chemistry

E 1. (ASIIN 4.3) It is recommended to further develop the existing safety practices in the laboratories according to international standards and accepted practices.

For the Bachelor's degree programme Chemistry

E 2. (ASIIN 4.3) It is recommended to modernize the laboratory equipment for the basic courses.

G Comment of the Technical Committees

Technical Committee 09- Chemistry (17.06.2015)

Assessment and analysis for the award of the ASIIN seal:

Two members of the TC report about the accreditation procedure. Altogether it was very positive, the peers did not like the high workload for the students, the limited amount of elective modules and the safety standards in the laboratories. The Technical Committee 09 suggests to change recommendation E2 and wants to include a new recommendation concerning the amount of practical work.

Technical Committee 10- Life Sciences (11.06.2015)

Assessment and analysis for the award of the ASIIN seal:

A member of the TC reports about the accreditation procedure. The members of the Technical Committee 10 – Life Sciences follow the recommendation of the peer group and do not want to change the requirements or recommendations.

Technical Committee 11- Geosciences (16.06.2015)

Assessment and analysis for the award of the ASIIN seal:

The Technical Committee 11 discusses the report and follows the assessment of the peers without any changes.

H Decision of the Accreditation Commission (26.06.2015)

Assessment and analysis for the award of the subject-specific ASIIN seal:

The Accreditation Commission discusses the procedure and decides to accept the changes to requirement A1 as suggested by Technical Committee 09 –Chemistry. The addition of another recommendation as suggested by technical Committee 10- Life Science is not accepted. The Accreditation Commission accepts all the other requirements and recommendations without any changes.

The Accreditation Commission for Degree Programmes decides to award the following seals:

Degree Programme	**ASIIN-Seal**	**Maximum Duration of Accreditation.**
Ba Biology	With Requirements	30.09.2020
Ma Biology	With Requirements	30.09.2020
Ba Chemistry	With Requirements	30.09.2020
Ma Chemistry	With Requirements	30.09.2020
Ba Geography	With Requirements	30.09.2020
Ma Geography	With Requirements	30.09.2020

Requirements

For all degree programmes

A 1. (ASIIN 5.1) The module descriptions must be updated according to the comments made in the accreditation report (type and duration of examination, credit points, definition of terminology used, description of learning outcomes and contents, eradication of mistakes).

A 2. (ASIIN 2.2) The quality management system must ensure that student workload is reflected in adequate credit points, in particular with regard to Bachelor's and Master's thesis.

A 3. (ASIIN 5.2) A programme-specific Diploma Supplement has to be prepared and handed out to students on a regular basis providing information about the objectives,

intended learning outcomes, structure and level of the degree, as well as about an individual's performance. It must also explain the educational system of Kazakhstan in order to foster comprehensibility and comparability between the educational systems.

Recommendations

For the Bachelor's and Master's degree programmes Biology and Chemistry

E 1. (ASIIN 4.3) It is recommended to further develop the existing safety practices in the laboratories according to international standards and accepted practices.

For the Bachelor's degree programme Chemistry

E 2. (ASIIN 4.3) It is recommended to modernize the laboratory equipment for the basic courses.

I Fulfilment of Requirements (01.07.2016)

Analysis of the peers and the Technical Committee 09 – Chemistry, 10 – Life Sciences, 11- Geosciences (20.06.2016)

The peers and the Technical Committees judge the requirements to be fulfilled.

Decision of the Accreditation Committee (01.07.2016)

The Accreditation Committee decides to extend the accreditation term as follows:

Degree Programme	**ASIIN-seal**	**Subject-specific labels**	**Duration of accreditation**
Ba Biology	All requirements fulfilled*	--	30.09.2020
Ma Biology	All requirements fulfilled*	--	30.09.2020
Ba Chemistry	All requirements fulfilled*	--	30.09.2020
Ma Chemistry	All requirements fulfilled*	--	30.09.2020
Ba Geography	All requirements fulfilled*	--	30.09.2020
Ma Geography	All requirements fulfilled*	--	30.09.2020