3. PROGRAM STRUCTURE AND ACADEMIC CONTENT:

Table 2.1 Curriculum of Information Systems Degree Programme (Bachelor's Degree)

14010 2.1	Currentin or miornic	Modu	Begree 1				Semester									
Module No.	Module	le Scope , ECTS credit s	Final Control Form of the Module	Course	Scope of the Course, ECTS credits	Control Form of the Course	1	2	3	4	5	6	7	8		
			Basic	Modules (all courses of the module	e are compuls	ory for learning)										
1	Basics of Natural Sciences	3	Examination	Physics	3	Computer-Based Testing	3									
2	Basics of Mathematics	6	Examination	Mathematics 1	3	Computer-Based Testing	3							8		
	Basics of Mathematics	0	Examination	Mathematics 2	3	Computer-Based Testing		3								
3	History of the State	4	State Exam	Modern History of Kazakhstan	4	Computer-Based Testing		4								
4	Foreign Language	9	Comprehensive Examination	English (German) Language	6	Written Control Work	6									
				English (German) Language	3	Computer-Based Testing		3								
5	National Language	9	Comprehensive	Kazakh Language	6	Written Control Work	6									
3		,	Examination	Kazakh Language	3	Computer-Based Testing		3								
6	Recreation Classes	4	Graded Test	Physical Education	2	Graded Test	2									
	(Beginner Level)		Graded Test	Physical Education	2	Graded Test		2						 		
7	Recreation Classes	4	Graded Test	Physical Education	2	Graded Test			2	2				-		
	(Intermediate Level)			Physical Education Manashtanu	2	Graded Test	1			2				 		
8	Social and Humanitarian Knowledge		Comprehensive Examination	Political and Social Studies	4	Reference Paper Computer-Based Testing	4									
				Cultural Studies and Psychology	3	Computer-Based Testing		3								
9	Programing Basics	7	Examination	Algorithms, Data Structures and Programming	7	Computer-Based Testing	-	7								
10	Mathematics	5	Examination	Mathematics 3	5	Computer-Based Testing			5							

11	Information and Communication Technologies	5	Examination	Information and Communication Technologies	5	Computer-Based Testing			5					
12	Profound Language Learning	6	Comprehensive Examination	Professional Kazakh (Russian) Language Professionally-Oriented Foreign	3	Computer-Based Testing Computer-Based				3				
			Lammanon	Language	3	Testing				3				
13	Basics of Information Systems	3	Examination	Basics of Information Systems	3	Computer-Based Testing				3				
14	Philosophy	5	Examination	Philosophy	5	Computer-Based Testing				5				
15	IT-Infrastructure	5	Examination	IT-Infrastructure	4	Written Control Work					5			
16	Databases in Information Systems	5	Examination	Databases in Information Systems	5	Written Control Work					5			
17	Final Internship	15	Internship	Work Experience Internship 3	10	Internship Report Defense								10
17	That morning	1.5	Report Defense	Pre-Graduation Internship	5	Internship Report Defense								5
18	Final Academic Assessment	15	State Exam	State examination in the specialty	4	Written Control Work								4
10			Diploma Thesis Defense	Developing and defending a thesis	11	Bachelor's Thesis Defense								11
			1	Elective Modules (containing	g elective co		l			ı		1	ı	
				Elective cours EM1	5	Written Control Work	5							
19	Basics of the Profession (Elective Modul 1, EM1)	10	Comprehensive Examination	Elective cours EM1	3	Computer-Based Testing		3						
				Practical Training 1,2	2	Internship Report Defense		2						
20	Technologies of Technogenic Risk Management (Elective Modul 2, EM2)	3	Examination	Elective cours EM2	3	Computer-Based Testing				3				
			Comprehensive Examination	Elective cours EM3	7	Computer-Based Testing			7					
21	Data Management and Knowledge Systems (Elective Modul 3, EM3)	18		Elective cours EM3	4	Written Control Work			4					
				Elective cours EM3	3	Course Paper				3				
				Work Experience Internship 1	4	Internship Report Defense				4				
22		11		Elective cours EM4	4					4				

	Automation and Designing (Elective Modul 4, EM4)		Comprehensive Examination	Elective cours EM4	7				7					
				Elective cours EM5	6	Written Control Work					6			
'	Information Protection, Software and Network		Comprehensive	Elective cours EM5	6	Computer-Based Testing						6		
23	Engineering	30	Examination	Elective cours EM5	8	Course Paper	Γ	Γ			8	<u> </u>		<u> </u>
	(Elective Modul 5, EM5)		Ехаппаноп	Elective cours EM5	6	Written Control Work					6			
				Elective cours EM5	4	Computer-Based Testing						4		
				Elective cours EM6	6	Course Paper						6		1
	Artificial Intelligence		Comprehensive	Elective cours EM6	4	Computer-Based Testing						4		
24	Systems (Elective Modul 6, EM6)	20	Examination	Elective cours EM6	6	Computer-Based Testing						6		
				Work Experience Internship 2	4	Internship Report Defense						4		
			'	Elective cours EM7	8	Course Paper	Τ	Γ					8	
25	Information Systems Software (Elective	30	Comprehensive	Elective cours EM7	6	Computer-Based Testing							6	
23	Modul 7, EM7)	30	Examination	Elective cours EM7	8	Course Paper	Τ	Τ					8	
	Modul /, EM/)			Elective cours EM7	8	Computer-Based Testing							8	
			ECTS per semsters				30	30	30	30	30	30	30	30
		TotalF	Exams (Final Contr	rol Forms)		Examinations	1	6	3	6	3	4	3	-
						State Exam	-	1	-	-	-	-	-	1
						Internship Report	-	1	-	1	-	1	-	2
						Defense								
						Graded Test	1	1	1	1	-	-	-	-
						Course Paper Defense	-	-	-	1	1	1	2	-
						Bachelor's Thesis Defense	-	-	-	-	-	-	-	1