3. PROGRAM STRUCTURE AND ACADEMIC CONTENT:

Module No.	Module	Module Scope, ECTS credits	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
											Semester			
Basic Modules (all courses of the module are compulsory for learning)														
1	Physics	6	Examination	Physics	6	Computer-Based Testing		6						
2	Basics of Mathematics	7	Comprehensive Examination	Mathematics 1	3	Written Control Work	3							
				Mathematics 2	4	Computer-Based Testing		4						
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 Examination	Kazakh Language	6	Written Control Work	6							
				Kazakh Language	3	Computer-Based Testing		3						
6	Recreation Classes (Beginner Level)	4	Graded Test	Physical Education	2	Graded Test	2							
				Physical Education	2	Graded Test		2						
7	Basics of Electrical Engineering	12	Comprehensive Examination	Electric Circuit Theory	5	Control Work			5					
				Basics of Electronic and Measuring Equipment	4	Computer-Based Testing				4				
				Basics of Radio Engineering and Telecommunications	3	Written Control Work				3				
8	Information and Communication Technologies	5	Examination	Information and Communication Technologies	5	Computer-Based Testing			5					
9	Philosophy	5	Examination	Philosophy	5	Computer-Based Testing			5					
10	Recreation Classes (Intermediate Level)	4	Graded Test	Physical Education	2	Graded Test			2					
				Physical Education	2	Graded Test				2				
11	Design of Electronic Devices	8	Comprehensive Examination	Circuity Engineering of Analog Electronic Devices	4	Course Paper Defense				4				
				Work Experience Internship 1	4	Internship Report Defense				4				

№	Module	Credits	Form of final control	Discipline	Credits	Form of assessment	1	2	3	4	5	6	7	8
12	Digital Control Systems	10	Comprehensive Examination	Digital Devices	5	Course Paper Defense					5			
				Microcontrollers and Microprocessors	5	Course Paper Defense					5			
13	Receiving and Transmitting Devices	14	Comprehensive Examination	Theory of Electrical Communication	5	Written Control Work					5			
				Radio Transmitters	4	Written Control Work					4			
				Radio Receivers	5	Course Paper Defense					5			
14	Radio Engineering Systems	10	Comprehensive Examination	Multichannel Telecommunication Systems	5	Written Control Work							5	
				Radio Engineering Systems	5	Course Paper Defense						5		
15	Profound Language Learning	6	Comprehensive Examination	Professional Kazakh (Russian) Language	3	Computer-Based Testing					3			
				Professionally-Oriented Foreign Language	3	Computer-Based Testing					3			
16	Social and Humanitarian Knowledge	8	Comprehensive Examination	Social and Political Studies	4	Computer-Based Testing	4							
				Cultural Studies and Psychology	3	Computer-Based Testing		3						
				Manashtanu	1	Reference Paper	1							
17	Final Internship	15	Internship Report Defense	Work Experience Internship 3	10	Internship Report Defense								10
				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
			Diploma Thesis Defense	Developing and defending a thesis	11	Development and Diploma Thesis Defense								11
Elective Modules (containing elective courses)														
19	Basics of the Profession (Elective Module 1; EM1)	13	Comprehensive Examination	Elective course EM1	4	Reference Paper		4						
				Elective course EM1	4	Computer-Based Testing		4						
				Elective course EM1	4	Creative Examination	4							
				Practical Training	1	Internship Report Defense		1						
20	Analysis and synthesis of electrical circuits (Elective Module 2; EM2)	23	Comprehensive Examination	Elective course EM2	6	Computer-Based Testing				6				
				Elective course EM2	4	Written Control Work			4					

No	Module	ECTS	Final Control Form	Course	ECTS	Control Form	1	2	3	4	5	6	7	8
				Elective course EM2	5	Written Control Work			5					
				Elective course EM2	4	Creative Examination				4				
				Elective course EM2	4	Reference Paper			4					
21	Technologies of Technogenic Risk Management (Elective Module 3; EM3)	3	Examination	Elective course EM3	3	Computer-Based Testing				3				
22	Modules of modern electronic equipment (Elective Module 4; EM4)	14	Comprehensive Examination	Elective course EM4	4	Written Control Work							4	
				Elective course EM4	5	Written Control Work							5	
				Elective course EM4	5	Creative Examination							5	
23	Design of electronics, control and communication systems (Elective Module 5; EM5)	16	Comprehensive Examination	Elective course EM5	4	Written Control Work							4	
				Elective course EM5	4	Computer-Based Testing							4	
				Elective course EM5	4	Creative Examination							4	
				Work Experience Internship 2	4	Internship Report Defense							4	
24	Modern Communication Systems (Elective Module 6; EM6)	20	Comprehensive Examination	Elective course EM6	5	Computer-Based Testing								5
				Elective course EM6	5	Written Control Work								5
				Elective course EM6	5	Written Control Work								5
				Elective course EM6	5	Creative Examination								5
Total ECTS per semesters							30	30	30	30	30	30	30	30
Total Exams (Final Control Forms)						Examinations	-	5	2	3	1	2	1	-
						State Exam	1	-	-	-	-	-	-	1
						Report Defense	-	1	-	1	-	1	-	2
						Graded Test	1	1	1	1	-	-	-	-
						Course Paper Defense	-	-	-	1	3	-	1	-
						Bachelor's Thesis Defense	-	-	-	-	-	-	-	1