

2. CONTENT OF THE EDUCATIONAL PROGRAM

No	Code and name of modules	Total credits by module	No	Name of subject and code	Credits by subjects	Cycle/component
1	GES -1 General educational subjects module	36	1	GES 101 History of Kazakhstan	5	GC/ CC
			2	GES 102 Philosophy	5	GC/ CC
			3	GES 103 Social and Political Knowledge Module (Sociology, Cultural Studies, Political Science, Psychology)	8	GC/ CC
			4	GES 1(2)04 Physical Culture	8	GC/ CC
			5	GES 205 Information and Communication Technologies	5	GC/ CC
			6	1. GES 106 Fundamentals of Legal Literacy and Anti-Corruption culture / 2. GES 106 Fundamentals of Ecology and Safe life / 3. GES 106 Fundamentals of Economics and Entrepreneurship / 4. GES 106 Fundamentals of Leadership and receptivity to innovation / 5. GES 106 Emotional Intellect 6. GES 106 Fundamentals of mathematical statistics	5	GC/ OC
2	GLC -2 Language communication module	25	1	GLC 101 Kazakh (Russian) Language	10	GC/ CC
			2	GLC 102 Foreign Language	10	GC/ CC
			3	GLC 203 English for Academic Purposes	5	CC/ UC
3	GER – 3 Global Ethics and Research module	22	1	GER 201 Inclusive Education	6	CC/ UC
			2	GER 402/1 Fundamentals of Educational research	10	CC/ UC
			3	GER 303 Professional ethics and identity	6	MC/ UC

4	GPS – 4 General pedagogical subjects module	45	1	GPS 201 Educational psychology	6	CC/ UC
			2	GPS 202 Pedagogy and didactic	6	CC/ UC
			3	GPS 303 Criteria Assessment Technology	5	CC/ UC
			4	CT(I)P 104 Continuous training (introductory) practice	1	CC/ UC
			5	T(I)P 105 Training (laboratory) practice	1	CC/ UC
			6	C(PP)P 206 Continuous (psychology and pedagogical) practice	1	CC/ UC
			7	T(I)P 207 Training (laboratory) practice	1	MC/ UC
			8	PP 308 Pedagogical Practice	6	MC/ UC
			9	P(P)P 409 Production (pedagogical) practice	16	MC/ UC
			10	P(P)P 410 Pre-diploma (pedagogical) practice	2	MC/ UC
5	POTM – 5 Professional-oriented training module	16	1	POTM 301 Methodology of Teaching Physics	10	MC/ UC
			2	POTM 302 Technology of school physical experiment	6	MC/ UC
6	GPh – 6 General physics	31	1	GPh 101 Mechanics	5	CC/ UC
			2	GPh 102 Molecular Physics and Thermodynamic	6	CC/ UC
			3	GPh 203/1 Electricity and magnetism	5	CC/ OC
				GPh 203/2 Foundations of electrotechnics		
			4	GPh 204/1 Оптика	6	CC/ UC
				GPh 204/2 Theory of oscillations and waves		
			5	GPh 205/1 Atomic and nuclear physics	5	CC/ UC

				GPh 205/2 The beginnings of modern physics		
			6	GPh 406 Bases of problem solving on physics	4	CC/ UC
7	FHM – 7	10	1	FHM 201/1 Analytical geometry and linear algebra	5	CC/ UC
	Fundamentals of Higher Mathematics			FHM 201/2 Algebra and number theory		
			2	FHM 202/1 Mathematical analysis	5	CC/ UC
				FHM 202/2 Differential equations		
8	SCPh – 8	32	1	SCPh 301/1 Statistical physics and thermodynamics	5	CC/ UC
	Selected Chapters of Physics			SCPh 301/2 Probability theory in physics		
			2	SCPh 302/1 Astronomy	5	MC/ OC
				SCPh 302/2 Fundamentals of thermophysics		
			3	SCPh 303/1 Fundamentals of quantum mechanics	6	MC/ OC
				SCPh 303/2 Modeling physics processes		
			4	SCPh 304/1 The beginnings of electrodynamics and STR	6	MC/ OC
				SCPh 304/2 Field theory		
			5	SCPh 305/1 Physics of solids	5	MC/ OC
				SCPh 305/2 Crystal physics		
			6	SCPh 406 Classical mechanics	5	MC/ UC
9	(Minor)	15	1	(M)SSE 401 Theory of electrical circuits	5	CC/ OC
	Engineering Smart systems		2	(M)SSE 401 Fundamentals of microelectronics	5	CC/ OC

10			3	(M)SSE 401 Physics of sensors and sensors	5	CC/ OC
	Final attestation	8	1	WDDP(P)PCE 401 Writing and defending a diploma paper (project) or passing a comprehensive exam	8	FA
	BCEFO:	240			240	