CONTENT OF THE EDUCATIONAL PROGRAM

№	Code and name of modules	Total credits by module	№	Name of subject and code	Credits by subjects	Cycle/component
1	**General educational subjects module**	**36**	**1**	*GES 101 History of Kazakhstan*	**5**	Cycle of General courses
			2	*GES 102 Philosophy*	**5**	Cycle of General courses
			3	*GES 103 Social and Political Knowledge Module (Sociology, Cultural Studies, Political Science, Psychology)*	**8**	Cycle of General courses
			4	**GES 1(2)04** Physical Culture	**8**	Cycle of General courses
			5	*GES 205 Information and Communication Technologies*	**5**	Cycle of General courses
			6	1. **GES 106/1** Fundamentals of Legal Literacy and Anti-Corruption culture	**5**	Cycle of General courses

				2. **GES 106/2** Fundamentals of Ecology and Safe life 3. **GES 106/3** Fundamentals of Economics and Entrepreneurship 4. **GES 106/4** Fundamentals of Leadership and receptivity to innovation 5. **GES 106/5** Emotional Intellect 6. **GES 106/6** Fundamentals of mathematical statistics 7. **GES 106/7** Financial literacy 8. **GES 106/8** Ecology and Sustainable Development		
2	**Language communication module**	**20**	**1**	*GLC 101 Kazakh (Russian) Language*	**10**	Cycle of General courses
			2	*GLC 102 Foreign Language*	**10**	Cycle of General courses
3	**SUPPORTING LEARNERS AS INDIVIDUALS**	**17**	**1**	SLI 201 Psychology in Education and Concepts of Interaction and Communication	4	Cycle of Core courses
			2	SLI 202 Education Science and Key Learning Theories	3	Cycle of Core courses
			3	SLI 203 Age and physiological features of children's development	3	Cycle of Core courses
			4	SLI 204 Inclusive educational environment	3	Cycle of Core courses

			5	SLI 305 Teaching Planning and Individualization of Learning	4	Cycle of Core courses
4	**TEACHING AND ASSESSMENT FOR LEARNING**	**9**	**1**	TAL 201 Teaching Methods and Technologies	5	Cycle of Core courses
			2	TAL 302 Assessment and development	4	Cycle of Core courses
5	**TEACHER AS A REFLECTIVE PRACTITIONER**	**9**	**1**	TRP 301 Pedagogical research	4	Cycle of Core courses
			2	TRP 402 Research, Development, and Innovation	5	Cycle of Core courses
6	**TEACHER AS A FACILITATOR OF LEARNING (PEDAGOGICAL PRACTICE)**	**29**	**1**	TP 101 Training (introductor) practice	**2**	Cycle of Core courses
			2	TP 202 Psychology and Pedagogical Practice	**2**	Cycle of Core courses
			3	TP 303 Pedagogical practice	**5**	Cycle of Core courses
			4	TP 404 Production (Pedagogical) practice	**18**	Cycle of Major courses
			5	TP 405 Pre-diploma (Pedagogical) practice	**2**	Cycle of Major courses
7	**FUNCTIONS NATURE: CAUSE AND EFFECT**	**30**	**1**	FNCE 101 Single variable differential calculus of functions	**6**	Cycle of Core courses
			2	FNCE 202 Single variable integral calculus of functions	**3**	Cycle of Core courses

			3	FNCE 203 Multivariable differential and integral calculus of functions of series	**6**	Cycle of Core courses
			4	FNCE 304/1 Differential equations	**3*5**	Cycle of Core courses
			5	FNCE 304/2 Differential geometry		Cycle of Core courses
			6	FNCE 304/3 Complex analysis		Cycle of Core courses
			7	FNCE 304/4 Mathematical model basis		Cycle of Core courses
			8	FNCE 304/5 Theory of series		Cycle of Core courses
8	**MATHEMATICAL CHALLENGES AND SOLUTIONS IN SOCIETY**	**28**	**1**	MCSS 101 Linear algebra and analytic geometry	**5**	Cycle of Core courses
			2	MCSS 202 Theory of probability and mathematical statistics	**6**	Cycle of Core courses
			3	MCSS 303/1 Mathematical literacy basics	**5**	Cycle of Core courses
			4	MCSS 303/2 Econometrics		Cycle of Core courses
			5	MCSS 304/1 Algebra and Numbers Theory	**6**	Cycle of Core courses
			6	MCSS 304/2 Logics and discrete mathematics		Cycle of Core courses

			7	MCSS 303/3 Foundations of geometry	**6**	Cycle of Core courses
			8	MCSS 303/4 Plane and spatial geometric constructions		Cycle of Core courses
9	**MATHEMATICAL THINKING AND MATHEMATICS TEACHING**	**35**	**1**	MTMT 101 Elementary mathematics (algebra)	**5**	Cycle of Major courses
			2	MTMT 202 Elementary mathematics (geometry)	**5**	Cycle of Major courses
			3	MTMT 303 Mathematics teaching methods	**6**	Cycle of Major courses
			4	MTMT 404/1 Mathematically based teaching methods	**5**	Cycle of Major courses
			5	MTMT 404/2 Mathematically based non-conventional methods		Cycle of Major courses
			6	MTMT 404/2 Algebra problem solving practicum	6	Cycle of Major courses
			7	MTMT 404/3 Problem solving practicum: Geometry		Cycle of Major courses
			8	MTMT 404/5 Olympiad problems methods solving	5	Cycle of Major courses
			9	MTMT 404/6 Mathematics history		Cycle of Major courses
			10	MTMT 205/1 Problem solving practicum: Trigonometry	**3**	Cycle of Major courses
			11	MTMT 205/2 Mathematical statements proof methods		Cycle of Major courses
10	**RESEARCH AND INTERDISCIPLINARY CONNECTIONS**	**19**	**1**	RIC 201/1 Physics	**3**	Cycle of Major courses
			2	RIC 201/2 Programming		Cycle of Major courses

			3	RIC 402 Digital Technologies in Education and Artificial Intelligence	**5**	Cycle of Major courses
			4	RIC 303 Basics of scientific research	**5**	Cycle of Major courses
			5	RIC 403/1 Lesson Study and Action Research	**3**	Cycle of Major courses
			6	RIC 403/2 Phenomena based mathematical disciplines teaching		Cycle of Major courses
			7	RIC 405/1 Design of learning resources in mathematics	**3**	Cycle of Major courses
			8	RIC 405/2 Applied packages in mathematics learning		Cycle of Major courses
11	**FINAL ATTESTATION**	**8**	**1**	Writing and defending a diploma paper (project) or passing a comprehensive exam	**8**	
TOTAL:		**240**			**240**	