

CONTENT OF THE EDUCATIONAL PROGRAM

№	Code and name of modules	Total number of loans	№	Code and name of discipline	Academic credit of the discipline	Cycle/ component
1	GES -1 Module of general education subject	36	1	GES 101 History of Kazakhstan	5	GED/ CC
			2	GES 102 Philosophy	5	GED/ CC
			3	GES 103 Social and Political Knowledge Module (Sociology, Cultural Studies, Political Science, Psychology)	8	GED/ CC
			4	GES 1(2)04 Physical Culture	8	GED/ CC
			5	GES 205 Information and Communication Technologies	5	GED/ CC
			6	1. GES 106/1 Fundamentals of Legal Literacy and Anti-Corruption culture 2. GES 106/2 Ecology and Sustainable Development 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	5	GED / OC
2	GLC -2 Language communication	25	1	GLC 101 Kazakh (Russian) Language	10	GED/ CC
			2	GLC 102 Foreign Language	10	GED/ CC
			3	GLC 203/1 English for Academic Purposes GLC 203/1 Academic writing	5	CC/ OC
3	GER – 3 Global ethics and scientific research	21	1	GER 201 Inclusive Education	6	CC/UK
			2	1. GER 303/1 Professional ethics and identity 2. GER 303/2 The basics of artificial intelligence	5	CC/ OC
			3	GER 402 Fundamentals of scientific research	10	CM /UK
4	FCh -4 Fundamentals of Chemistry	52	1	FCh 101 Inorganic chemistry 1	6	CC/UK
			2	FCh 102 Inorganic chemistry 2	5	CC/UK
			3	FCh 203/1 Chemistry of elements FCh 203/2 Chemistry of transuranic elements	5	CC/OC

			4	FCh 204/1 Qualitative analysis FCh 204/2 Chromatographic research methods	6	CC/OC
			5	FCh 205 Physical chemistry	6	CC/UK
			6	FCh 206/1 Quantitative analysis FCh 206/2 Basics of metrology and standardization	5	CC/OC
			7	FCh 207/1 Higher mathematics FCh 207/2 Applied Mathematics	5	CC/OC
			8	FCh 307 Electrochemistry	5	CC/UC
			9	FCh 308 Physical research methods	5	CC/UK
			10	CT(I)P 104/1 Continuous training (introductory) practice	1	CC/UK
			11	T(I)P 104/2 Training (introductory) practice	1	CC/UK
			12	TP 205 Training Practice	2	CC/UK
5	FOCh -5 Fundamentals of organic chemistry	27	1	FOCh 201 Organic chemistry 1	6	CC/UK
			2	FOCh 202 Organic chemistry 2	5	CC/UK
			3	FOCh 303/1 Chemistry of natural compounds FOCh 303/2 Biochemistry and BAS	5	CM/OC
			4	FOCh 304/1 Petrochemistry FOCh 304/2 Geochemistry	5	CM/OC
			5	FOCh 305 Chemistry of high-molecular compounds	6	CM/UC
	SBCh -6 Selected branches of chemistry	56	1	SBCh 301 Chemical technology	5	CC/UK
			2	SBCh 302 Colloid chemistry	5	CC/UK
			3	SBCh 303 Computer chemistry	5	CM/UK
			4	SBCh 304/1 Methods of solving complex problems in chemistry SBCh 304/2 Chemistry tasks	5	CM/OC
			5	SBCh 405/1 Foundation nanochemistry SBCh 405/2 Foundation nanotechnology	5	CM/OC
			6	SBCh 306 Chemical synthesis	5	CM/UK
			7	SBCh 407/1 General chemistry SBCh 407/2 Chemical experiment	4	CM/OC
			8	PP 306 Production practice	4	CC/UK
			9	PP 407 Production practice	16	CM /UK

			10	P(P)P 408 Pre -diploma (production) practice	2	CM /UK
	(Minor) Chemist teacher	15	1	(M) ChT 401 Methods of teaching chemistry	5	CC/OC
			2	(M) ChT 402 Methods of conducting experiments in chemistry	5	CC/OC
			3	(M) ChT 403 Modern assessment technologies in chemistry teaching	5	CC/OC
	Final attestation	8	1	WDDP(P)PCE 401 Writing and defending a diploma paper (project) or passing a comprehensive exam	8	ИА
TOTAL:		240			240	