

2.CONTENT OF THE EDUCATIONAL PROGRAM

№	Module name	Acad. credits	№	Discipline code and name	Acad.credit discipline.	Cycle/ component
1	GES -1 General education 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 technology	5	GC/CC
			6	GES 106/1 Fundamentals of Legal Literacy and Anti-Corruption culture GES 106/2 Fundamentals of Ecology and Safe life GES 106/3 Fundamentals of Economics and Entrepreneurship/ GES 106/4 Fundamentals of Leadership and receptivity to innovation GES 106/5 Emotional Intellect GES 106/6 Fundamentals of mathematical statistics	5	ООД/ KB
2	GLC -2 Language communication	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/ OC
3	GER – 3 Global ethics and research	22	1	GER 201 Inclusive education	6	CC/ OC
			2	GER 402/2 Fundamentals of scientific research	10	CC/ OC
			3	GER 303 Professional ethics and identity	6	MD/UK
4		12	1	FSCI 101 Higher Mathematics	5	CC/ UK

5	FSCI - 4 Fundamental Science	2	FSCI 202/1 Operational systems FSCI 202/2 Fundamentals of the organization of Microsoft Windows operating systems	5	MD/ UK			
		3	TP 103 Training practice	2	CC/ OC			
		29	1	PLT 101 Algorithmization and programming technology	6	CC/ UK		
5	PLT-5 Programming Languages and Technologies	2	PLT 202 C/C++ programming technologies	6	CC/ OC			
		3	PLT 203/1 Introduction to the SQL Database Language PLT 203/2 Databases in IS	6	CC/ OC			
		4	PLT 304 Object – oriented programming	5	CC/ OC			
		5	TP 205 Training practice	2	CC/ OC			
		6	PP 306 Production practice	4	CC/ OC			
		6	ISMB -6 Information systems and management basics	38	1	ISMB 201 Fundamentals of information systems	5	CC/ OC
				2	ISMB 302 IT-infrastructure	5	CC/ OC	
3	ISMB 303 Computer networks			5	MC/ UK			
4	ISMB 304 Development of business applications in IS			5	MC/ UK			
5	ISMB 205/1 Architecture of information systems ISMB 205/2 Architecture of computer systems			6	CC/ OC			
6	ISMB 306/1 Information systems design ISMB 306/2 Intelligent information systems			5	MD/ UK			
7	ISMB 307/1 TBig Data technologies and cloud computing ISMB 307/2 Software tools in information systems			5	CC/ OC			
8	P(P)P 408 Pre-graduate (industrial) practice			2	MC/ UK			
7	DTAF-7 Digital Technologies and IS Applications	55	1	DTAF 201/1 Computer grafics DTAF 201/2 3D modelling	5	CC/ OC		
		2	DTAF 202 Machine learning	5	CC/ OC			

		3	DTAF 303/1 Development of Internet applications DTAF 303/1 WEB-technologies	5	CC/ OC
		4	DTAF 304/1 Multimedia technologies and media systems DTAF 304/2 Computer game programming	5	MD/ UK
		5	DTAF 305/1 Robotic systems and complexes DTAF 305/2 Fundamentals of robotics	5	MD/ UK
		6	DTAF 306 Artificial intelligence system	5	MC/ UK
		7	DTAF 307 Analysis and modelling of business processes	4	MC/ UK
		8	DTAF 408/1 Mobile application development DTAF 408/2 Tools for creating mobile applications	5	MD/ UK
		9	PP 409 Production practice	16	MC/ UK
8	(Minor) Information systems in education	15	1 (M) ISO 401 Corporate Information Systems in Education (M) ISO 402 Designing information systems in education (M) ISO 403 Information Technologies in science and education	15	CC/ OC
9		8	WDDP(P)PCE 401 Writing and defending a thesis (project) or preparing and passing a comprehensive exam	8	FC
	TOTAL:	240		240	