



AMALIY MATEMATIKA / APPLIED MATHEMATICS - 60540200

Akademik daraja:	Bakalavr
O'qish davomiyligi:	4 yil
Ta'lim shakli:	Kunduzgi
Beriladigan kvalifikatsiya:	Amaliy matematik. Matematika va informatika fani o'qituvchisi

Academic Degree:	Bachelor
Duration of Study:	4 Years
Mode of Study:	Full-time
Qualification Awarded:	Applied Mathematician. Teacher of Mathematics and Informatics

I. PROCESS SCHEDULE

Orientation week **T**heoretical and Practical Instruction **A**ssessment **I**Professional Internship **V**acation **F**inal Attestation / Bachelor's Thesis

Notes:

1. One credit is equivalent to 30 academic hours. The duration of one academic hour is 50 minutes.
 2. Elective courses within the major may be revised to reflect the requirements of employers and other stakeholders.
 3. Practical classes and laboratory sessions in specialised courses included in the curriculum shall be conducted at the higher education institution and, where appropriate, at partner organisations and enterprises serving as practical training bases. Within one semester, students may choose one elective course.
 4. Assessment of students' knowledge and academic performance shall be carried out in accordance with the regulations developed under the University's credit system.
 5. A dual qualification may be awarded provided that the student completes a full set of elective courses corresponding to one additional qualification, amounting to 20 ECTS credits within this block.
- The courses selected for the dual qualification shall be taught in a coherent and sequential manner during Semesters 4, 5, 6 and 7.

Rector

Head of the Academic Affairs Department

Dean

Head of the Education Quality Assurance Department

Head of the Department of Information Technologies

President of the Student Parliament

A.B. Allakuliev

R.K. Allaberganov

F.D. Shamuratov

Z.B. Sharipova

Sh.T. Sabirov

A.M. Raxmatova

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II. CURRICULUM

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№	Course Code	Course / Learning Activity	Total Workload		Student Workload (contact hours)				Student-centered learning	Distribution of Total hours								Distribution of ECTS credits								ECTS credits		
					Lectures	Seminar	PBL/CBL, Lab., Pract	Total		Courses				Courses				Courses										
			Weeks							Weeks				Weeks														
			38							38				38														
			Semesters							Semesters				Semesters														
Hours	%																											
1.00	-	Majburiy fanlar	Compulsory modules	5160	71,7	1116	183	765	2064	3096	900	840	900	840	660	420	600	0	1	2	3	4	5	6	7	8	172	
1.01	EC5M0005	O'zbekistonning eng yangi tarixi	CONTEMPORARY HISTORY OF UZBEKISTAN	120	1,7	33	15		48	72	120								4								4	
1.02	ED2M0651	Umumiy psixologiya	GENERAL PSYCHOLOGY	180	2,5	45	27		72	108	180								6								6	
1.03	PH4M0074	O'zbek (rus) tili	UZBEK (RUSSIAN) LANGUAGE	120	1,7			48	48	72		120								4							4	
1.04	PH5M0758	Mediasavodxonlik va axborot madaniyati	MEDIA LITERACY AND INFORMATION CULTURE	120	1,7	30	18		48	72		120								4							4	
1.05	EC5M0011	Falsafa	PHILOSOPHY	120	1,7	48			48	72			120								4						4	
1.06	ED2M0015-0016	Umumiy pedagogika	GENERAL PEDAGOGY	240	3,3	60	36		96	144			120	120							4	4					8	
1.07	EC5M0022	Dinshunoslik	RELIGIOUS STUDIES	120	1,7	48			48	72				120								4					4	
1.08	DT3M0759	Informatikaning nazariy asoslari	THEORETICAL FOUNDATIONS OF COMPUTER SCIENCE	180	2,5	27	15	30	72	108	180								6								6	
1.09	DT2M0760-0761	Chiziqli algebra va analitik geometriya	LINEAR ALGEBRA AND ANALYTICAL GEOMETRY 1, 2	270	3,8	60		48	108	162	150	120							5	4							9	
1.10	DT2M0762-0763	Diskret matematika va matematik mantiq	DISCRETE MATHEMATICS AND MATHEMATICAL LOGIC	270	3,8	60		48	108	162	150	120							5	4							9	
1.11	DT2M0764 (0765; 0232)	Matematik analiz	MATHEMATICAL ANALYSIS	480	6,7	120		72	192	288	120	180	180						4	6	6						16	
1.12	DT3M0766-0768	Algoritmik tillar va dasturlash	PROGRAMMING LANGUAGES AND ALGORITHMS	510	7,1	84		120	204	306		180	150	180						6	5	6					17	
1.13	DT2M0769	Umumiy fizika	GENERAL PHYSICS	180	2,5	30		42	72	108			180								6						6	
1.14	DT2M0770-0771	Differensial tenglamalar	DIFFERENTIAL EQUATIONS	270	3,8	60		48	108	162			150	120							5	4					9	
1.15	DT2M0772	Ehtimollar nazariyasi va matematik statistika	PROBABILITY THEORY AND MATHEMATICAL STATISTICS	180	2,5	45		27	72	108				180								6					6	
1.16	EN2M0773	Nazariy mexanika	THEORETICAL MECHANICS	120	1,7	30		18	48	72				120								4					4	
1.17	DT2M0774	Funksional analiz	FUNCTIONAL ANALYSIS	150	2,1	30		30	60	90					150								5				5	
1.18	DT3M0775	Sonli usullar	NUMERICAL METHODS	180	2,5	27		45	72	108				180									6				6	
1.19	DT2M0776	Matematik fizika tenglamalari	EQUATIONS OF MATHEMATICAL PHYSICS	180	2,5	45		27	72	108				180									6				6	
1.20	DT3M0777-0778	Matematik modellash	MATHEMATICAL MODELLING	270	3,8	48		60	108	162				150	120								5	4			9	
1.21	EC4M0779	Jarayonlar tadqiqoti va optimal boshqaruv	PROCESS RESEARCH AND OPTIMAL CONTROL	150	2,1	30		30	60	90					150									5			5	
1.22	DT3M0780	Matematika va informatikani o'qitish metodikasi	METHODOLOGY OF TEACHING MATHEMATICS AND INFORMATICS	150	2,1	30	30		60	90					150									5			5	
1.23	DT3M0781	Kompyuterli matematik tizimlar	COMPUTER MATHEMATICAL SYSTEMS	180	2,5	27		45	72	108					180										6		6	
1.24	PH5M0782	Uzluksiz ta'limdagi tendensiyalar va zamonaviy yondashuvlar	CURRENT TRENDS AND MODERN APPROACHES IN LIFELONG LEARNING	120	1,7	30	18		48	72					120										4	4	4	
1.25	ED5M0181	Inklyuziv ta'lim. Gosital pedagogika	INCLUSIVE EDUCATION. HOSPITAL PEDAGOGY	120	1,7	24	24		48	72					120										4	4	4	
1.26	DT3M0783	Kompleks o'zgaruvchili funksiyalar nazariyasi	THEORY OF FUNCTIONS OF A COMPLEX VARIABLE	180	2,5	45		27	72	108					180										6		6	
2.00	-	Tanlov fanlar	Elective modules	960	13,3	153	15	216	384	576	0	0	0	0	240	420	300	0	0	0	0	0	8	14	10	0	32	
2.01	PH2E1846	Kasbiy sohada xorijiy tillar	FOREIGN LANGUAGES FOR PROFESSIONAL PURPOSES	120	1,7	18		30	48	72					120									4			4	
	DT3E1847	Sun'iy intellekt texnologiyalari	ARTIFICIAL INTELLIGENCE TECHNOLOGIES	120	1,7	18		30	48	72					120									4			4	
	DT1E1848	Mashinali o'rgatish	MACHINE LEARNING	120	1,7	18		30	48	72					120									4			4	
	DT3E1849	Bulutli texnologiyalar	CLOUD TECHNOLOGIES	120	1,7	18		30	48	72					120									4			4	
2.02	DT3E1850	Veb dasturlash	WEB PROGRAMMING	120	1,7	18		30	48	72					120									4			4	
	DT3E1851	Veb texnologiyalari	WEB TECHNOLOGIES	120	1,7	18		30	48	72					120									4			4	
	DT3E1852	Front-end ishlab chiqish	FRONT-END DEVELOPMENT	120	1,7	18		30	48	72					120									4			4	
	DT3E1853	Axborotlarni himoyalash usullari	INFORMATION PROTECTION METHODS	120	1,7	15	15	18	48	72					120										4		4	
2.03	DT3E1854	Axborot xavfsizligi asoslari	FUNDAMENTALS OF INFORMATION SECURITY	120	1,7	15	15	18	48	72					120										4		4	
	DT3E1855	Kriptografik usullar	CRYPTOGRAPHIC METHODS	120	1,7	15	15	18	48	72					120										4		4	
	DT3E1364	Python dasturlash tili	PYTHON PROGRAMMING	180	2,5	27		45	72	108					180									6			6	
	DT3E1365	Python kutubxonalari	PYTHON LIBRARIES	180	2,5	27		45	72	108					180									6			6	
2.04	DT3E1366	Pythonda loyihalash	PYTHON-BASED PROJECT DEVELOPMENT	180	2,5	27		45	72	108					180									6			6	
	DT3E1856	Nokorrekt va teskari masalalar	ILL-POSED AND INVERSE PROBLEMS	120	1,7	30		18	48	72					120									4			4	
	DT3E1857	Matematik fizikaning tanlangan boblari	SELECTED TOPICS IN MATHEMATICAL PHYSICS	120	1,7	30		18	48	72					120									4			4	
	DT3E1858	Shartli korrekt masalalar	CONDITIONALLY WELL-POSED PROBLEMS	120	1,7	30		18	48	72					120									4			4	
2.06	DT3E1859	Mobil ilovalar yaratish	MOBILE APPLICATION DEVELOPMENT	180	2,5	27		45	72	108					180										6		6	
	DT3E1860	Mobil ilovalarni loyihalash	MOBILE APPLICATION DESIGN	180	2,5	27		45	72	108					180										6		6	
	DT3E1861	Ta'limda mobil ilovalardan foydalanish	USE OF MOBILE APPLICATIONS IN EDUCATION	180	2,5	27		45	72	108					180									6			6	
	DT3E1367	Kompyuter grafikasi	COMPUTER GRAPHICS	120	1,7	18		30	48	72					120										4		4	
2.07	DT3E1368	Kompyuter geometriyasi	COMPUTATIONAL GEOMETRY	120	1,7	18		30	48	72					120										4		4	
	DT3E1369	Vektorli grafika	VECTOR GRAPHICS	120	1,7	18		30	48	72					120										4		4	
3.00	-	Malakaviy amaliyot	Practical modules	840	11,7	0	0	0	0	840	0	60	0	60	0	60	0	660	0	2	0	2	0	2	0	2	28	
3.01	DT3P2186	Malakaviy amaliyot 1	PROFESSIONAL INTERNSHIP 1	60	0,8				60			60								2							2	
3.02	DT3P2187	Malakaviy amaliyot 2	PROFESSIONAL INTERNSHIP 2	60	0,8				60				60									2					2	
3.03	DT3P2188	Malakaviy amaliyot 3	PROFESSIONAL INTERNSHIP 3	60	0,8				60					60									2				2	
3.04	DT3P2189	Bitiruv oldi malakaviy amaliyot	PRE-GRADUATION PROFESSIONAL INTERNSHIP	660	9,2				0	660							660									22	22	
4.00	-	Yakuniy davlat attestatsiyasi	Final State attestation	240	3,3	96	0	0	96	144	0	0	0	0	0	0	0	240	0	0	0	0	0	0	0	8	8	
4.01	DT3A2272	Fanlararo yakuniy attestatsiya	FINAL CROSS-DISCIPLINARY EXAMINATION	240	3,3	96			96	144							240									8	8	
	DT3G2321	Bitiruv malakaviy ishi (loyihasi)	GRADUATION QUALIFICATION WORK (PROJECT)	240	3,3	96			96	144							240									8	8	
Total for the 4 years (Compulsory and Elective modules)				6120	85,0	1269	198	981	2448	3672	900	840	900	840	900	840	900	0	30	28	30	28	30	28	30	30	20	204