

CURRICULUM

of Educational Program on enrollment for 2024-2025 academic year (spring

Educational program 7M05301 - "Applied and engineering physics" Group of educational programs M090 - "Physics"

Chairman, of the Management Board-

1	Form of study: full-time	I	Ouration of	study: 2 y	ear	W. Charles	Academic	degree:Mast	er of Earth	Sciences	
Discipline code	Name of disciplines		Total		Classroom	SIS (including		Allocation of face-to-face training based or courses and semesters			based on
			amount in	Total	amount	TSIS) in	Form of	I co	urse	2 course	
			credits	hours	lec/lab/pr	hours	control	1 semester	2 semester	3 semester	4 semester
		M	I-1. Modul	e of basic	training (un	iversity com	ponent)				
NG210	Foreign language (professional)	BD UC	5	150	0/0/3	105	Е		3		-
	Management Psychology	BD UC	3	90	1/0/1	60	Ε		3		
	History and philosophy of science	BD UC	3	90	1/0/1	60	E	3 3			
	Higher school pedagogy	BD UC	3	90	1/0/1	60	Е				
			M -	2. Modu	le of theoreti	cal training				1	7
	Solid State Physics and Crystallography	BD, CCH	5	150	2/0/1	105	Е		5		
HY244	Thermodynamics				2/0/1	25.3.1.		<del></del>			
			N	1 - 3. Ma	terials Scienc	e Module					
UV201 I	Materials science and advanced materials technology	BD, CCH	5	150	2/0/1	105	E		5		
	Physical and chemical bases of				2/0/1						
	materials Project Management				2/0/1						
						105	E		V:	5	1
PHY270	Multipliase structures and methods for calculating phase diagrams	PD, CCH	5	150	1/0/2	103	E				
				M-4. Na	notechnology	module	- Norway				
				1			- marin (19) (20) (19)			5	
РНҮ295	Synthesis Methods of Nanomaterials and Nanostructures	BD, CCH	5	150	2/0/1	105	E				
PHY279	Information technologies in science and production				1/0/2						
PHY700	Production, properties, application of carbon low-dimensional materials.	PD, CCH	5	150	2/0/1	105	Е			5	
PHY266	Materials for energy storage and	1			1/0/2						
ATTECO	conversion			M-5 Ar	plied Physic	s Module					
				IVA-S. ZX	price I nyste	S INTOGUIS			5		
PHY293	Numerical methods for solving physical problems	PD, UC	5	150	2/0/1	105	E		-		
PHY294	Fundamentals of Nanotechnologies	PD, UC	5	150	2/0/1	105	E		5		1
PHY296	Physics of the Atom and Atomic Nucleus	PD, UC	5	150	2/0/1	105	E	5		5	
PHY298	Application of quantum-size structures in micro-and nanoelectronics devices	PD, UC	5	150	2/0/1	105	Е			,	
PHY297	Practical perspective of X-ray diffratometry	PD, CCH	5	150	2/0/1	105	E	5			
PHY264	The modern theory of the atomic nucleus	PD, CCH		150	1/0/2						
PHY255	Semiconductor's Structures			150	2/0/1	105	E	5		-	
PHY267	Materials with special	PD, CCF	5	150	1/0/2	103					
	technological properties			M	-6. R&D me	dule					
PHY701	Electron and sonde microscopy				2/0/1	105	E	District Pl		.5	
	for studying of nanomaterials  Spectral methods for studying love	PD, CCI	1 5	150	2/0/1	103					
PHY299	opecial memods for studying for			M-7 P	ractice-orien	ted module		THE PROPERTY AND			
		BDUC	6	141-7.11	metice-offen			6			
AAP229		PD, CCI				362					- 8
AAP269	Research practice	FD, CCI	1 0 N	A-8 Exp	erimental res	earch modu	le		4		
			2	L-G. Exp				3.4	2		
AAP251	Research work of a master's student, including internship and completion of a master's thesis	RWMS UC									

	The state of the s							60		60	60		
	Total based on UNIVERSITY:							30		30			
CA212	Preparation and defense of a master's thesis	FA	8							20	8		
			N	1-9. Mod	ule of final	attestation							
AAP255	Research work of a master's student, including internship and completion of a master's thesis	RWMS UC	14								14		
AAP254	Research work of a master's student, including internship and completion of a master's thesis	RWMS UC	5							5			
AAP241	Research work of a master's student, including internship and completion of a master's thesis	RWMS UC	3					3					

	Number of credits for the en	tire perio					
	Cycles of disciplines	Credits					
Cycle code			university component (UC)	component of choice (CCH)	Total		
BD	Cycle of basic disciplines		20	15	35		
PD	Cycle of profile disciplines		28	25	53		
	Total for theoretical training:	0	48	40	88		
	RWMS				24		
FA	Final attestation	8			8		
	TOTAL:	8	48	40	120		

Decision of the Academic Council of Kazntu named after K.Satpayev. Protocol No. 20 24. Dy.

Decision of the Educational and Methodological Council of Kazntu named after K.Satpayev. Protocol No. 6 " 16 Dy. 20 24.

Decision of the Academic Council of the Institute M&M. Protocol No. 4 " 20 20 4 y.

Vice-Rector for Academic Affairs

Director of M&M Institute

Head of the MN&EP Department

Specialty Council representative from employers

Uskenbayeva R.K.

Rysbekov K.B.

Kudaibergenov K.K.

Idrisova T.K.