

LOMONOSOV MOSCOW STATE UNIVERSITY
FACULTY OF PHYSICS

WORKING PLAN

for the 2023/2024 academic year for students of the 1st year of the Master's program of the Faculty of Physics (Master's degree, full-time study)
student of the program " MM_PHYSICS "(direction 03.04.02 "Physics", MAG. prog. "Physics of Neutrinos and Fundamental Interactions of Elementary Particles")

DISCIPLINES	Full academic load per year	Semester # 1 (18 weeks)										Semester # 2 (17 weeks)											
		Academ. load per semester	self-study	Classroom sessions						Reporting		Academ. load per semester	self-study	Classroom sessions						Reporting			
				in total	per week				test	exam	in total			per week				test	exam				
					in total	lectures	seminars	lab						media	in total	lectures	seminars			lab	media		
Inter-faculty elective courses	72	36	18	18	1	1					test	exam	36	19	17	1	1					test	exam
History and methodology of physics	72												72	38	34	2	2						exam
"Foreign language"																							
Foreign language for professional communication	180	72	36	36	2		2				test		108	74	34	2		2					exam
"Modern natural science"																							
Modern problems of physics: Quantum collision theory, K.A.Kouzakov (semester # 1), Interaction of particles and radiation with matter, K.A.Kouzakov (semester # 2)	72	72	36	36	2	1	1				test												
<i>The elective part</i>																							
Special physics workshop, K.A.Kouzakov and A.I.Studenikin	216	108									test*		108									test*	
Disciplines of master's programs: Introduction to neutrino physics (Part 1), A.I.Studenikin (semester # 1), Introduction to neutrino physics (Part 2), A.I.Studenikin (semester # 2)	180	72	36	36	2	1	1				exam		108	74	34	2	1	1					exam
Disciplines of master's program: Quantum field theory (Part 1), V.Ch.Zhukovsky (semester # 1); Quantum field theory (Part 2), V.Ch.Zhukovsky (semester # 2)	180	72	36	36	2	1	1				exam		108	74	34	2	1	1					exam
Disciplines of master's program: Theory of fundamental hadron interactions, A.V.Borisov (semester # 1); Introduction to group theory, I.P.Volobuev (semester # 2)	144	72	36	36	2	1	1				test		72	38	34	2	1	1				test	
Disciplines of master's programs: Standard Model and its extensions, E.E.Boos (semester # 2)	72												72	38	34	2	1	1				test	
Disciplines of master's programs of choice: Machine learning for data processing, A.P.Kryukov; Data analysis in astroparticle physics, G.I.Rubtsov (semester # 1) ; Quantum field theory in curved spacetime, Yu.V.Grats; Modern gravity (Part 1), D.V.Galtsov (semester # 2)	144	72	36	36	2	1	1				exam		72	38	34	2	1	1					exam

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		Academ. load per semester	self-study	Classroom sessions							Reporting		Academ. load per semester	self-study	Classroom sessions							Reporting	
				in total	per week					test	exam	in total			per week					test	exam		
					in total	lectures	seminars	lab	media						in total	lectures	seminars	lab	media			test	exam
Disciplines of master's programs of choice: Particle interactions in external fields, A. I. Studenikin, Quantum field theory under finite temperature, V.Ch.Zhukovsky (semester # 1); Neutrino mass generation models, K.L.Stankevich, Supersymmetry (Part 1), A.E.Kazantsev (semester # 2)	144	72	36	36	2	1	1				exam	72	38	34	2				2		test		
Research practice	576	360	360	until 29.12. 17 weeks							test		216	216	until 31.05. 16 weeks							test	
Research work	108	108	108	until 29.12. 17 weeks							test												
Total	2160	1116	738	270	15	7	8				7	4	1044	647	289	17	8	7	2		6	5	

*test with score

Dean of the Faculty of Physics
Professor