



WORKING CURRICULUM

Education program "Material science and technology of new materials - 7M07103"
Group of Educational Programs "Material science and technology of new materials - M101"
enrolment for 2020 - 2021 academic year

Academic degree: Magister
Term of study: 2 years

year of study	Code	Name of course	Component	Academic credits	lecture/laboratory/practice/MSW	Prerequisites	Code	Name of course	Component	Academic credits	lecture/laboratory/practice/MSW	Prerequisites
1	1 semester						2 semester					
	LNG202	Foreign language (professional)	BD IC	6	0/0/3/3		AAP244	Pedagogical practice	BD IC	4	0/0/2/2	
	HUM201	History and philosophy of science	BD IC	4	1/0/1/2		PHY268	Technological quality assurance of materials	BD OC	6	1/0/2/3	
	HUM207	Higher school pedagogy	BD IC	4	1/0/1/2		PHY264	The modern theory of the atomic nucleus	BD OC	6	1/0/2/3	
	HUM204	Management psychology	BD IC	4	1/0/1/2		PHY265	Materials for 3D technology	PS IC	6	1/0/2/3	
	PHY262	Materials science and technology of new materials	BD OC	6	1/0/2/3		PHY266	Materials for energy storage and conversion	PS IC	6	1/0/2/3	
	PHY273	Numerical methods for solving physical problems	PS IC	6	1/0/2/3		AAP242	Master's student scientific research, including an internship and a master's thesis.	MSSR	6		
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	In total		36			In total			34			
2	3 semester						4 semester					
	PHY269	Methodology for materials selection and technology	PS OC	6	1/0/2/3		AAP242	Master's student scientific research, including an internship and a master's thesis.	MSSR	6		
	PHY270	Multiphase structures and methods for calculating phase diagrams	PS OC	6	1/0/2/3		AAP236	Research scientific training	PS	7		
	PHY271	Destruction and reliability assessment of materials	PS OC	6	1/0/2/3		ECA205	Registration and defense of the master's thesis (RaDMT)	FA	12		
	PHY272	The Surface Structure Engineering	PS OC	6	1/0/2/3							
	AAP242	Master's student scientific research, including an internship and a master's thesis.	MSSR	6								
	In total		30			In total			25			
						In all			125			

Number of credits for the whole period of study	
Cycles of disciplines	Credits
The cycle of general education	0
A cycle of basic disciplines (BD IC, BD OC)	40
A cycle of principal subjects (PS IC, PS OC)	49
All as the theoretical classes	89
MSSR	24
Registration and defense of the master's thesis (RaDMT)	12
In total	125

Decision of the Academic Board of Satbayev University, Protocol No. 3 of 15.09.2020

Decision of the Academic Council of the Institute of Metallurgy and Industrial engineering, Protocol No. 10 of 15.09.2020

Vice-Rector for Research and Academic Affairs

D.K. Nauryzbayeva

Chair of the APC

K.B. Tulegenova

Director of Institute of Metallurgy and Industrial engineering

K.K. Yelmenov

Head of "Engineering physics" department

R.E. Beisenov