



SATBAYEV  
UNIVERSITY



WORKING CURRICULUM for 2021-2022 academic year admission  
Educational program 8D07103 - "Materials Science and Engineering"  
Group of Educational programs D101 - "Materials science and technology of new materials"

Full-time study Study duration : 3 years Academic degree: Doctor of Philosophy (PhD)

Year of study	Code	Name of discipline	semester	Cycle	Total Credits	Total hours	classroom volume lec/lab/pr	IWS (including IWS/ST), in hours	form of control	Competencies
<b>Basic training module</b>										
<b>University component</b>										
1	LNG305	Academic writing	1	BD IC	5	150	0/0/3	105	E	
1	MET322	Scientific research methods	1	BD IC	5	150	2/0/1	105	E	
<b>Component of choice</b>										
1	PHY316	Advanced structural hardening technologies	1	BD OC	5	150	2/0/1	105	E	
<b>Profile training module</b>										
<b>Component of choice</b>										
1	PHY317	Applied problems in materials science	1	PS OC	5	150	2/0/1	105	E	
1	PHY318	Software for the structure formation of materials	1	PS OC	5	150	2/0/1	105	E	
<b>Practice-oriented module</b>										
1	AAP350	Pedagogical practice	2	BD	10				Report	
2	AAP355	Research practice	3	PS	10				Report	
<b>Research module</b>										
1	AAP345	Doctoral student research work, including internship and doctoral dissertation	2	DSRW	24				Report	
2	AAP345	Doctoral student research work, including internship and doctoral dissertation	3	DSRW	24				Report	
2	AAP346	Doctoral student research work, including internship and doctoral dissertation	4	DSRW	25				Report	
3	AAP346	Doctoral student research work, including internship and doctoral dissertation	5	DSRW	25				Report	
3	AAP346	Doctoral student research work, including internship and doctoral dissertation	6	DSRW	25				Report	
<b>Final certification module</b>										
<b>Required component</b>										
3	ECA303	Writing and defending a doctoral dissertation	6	FA	12				Defense of dissertations	

The number of credits for the entire period of study	
Discipline cycles	Credits
Cycle of basic disciplines (BD IC, BD OC)	25
Cycle of special disciplines (PS IC, PS OC)	20
<b>Total of theoretical study :</b>	<b>45</b>
DSRW	123
Writing and defending a doctoral dissertation	12
<b>TOTAL:</b>	<b>180</b>

The decision of the Academic Council of KazNRTU named after K. Satpayev. Minutes No. 3 dated "25" "06" 2021

Decision of the Academic Council of the Institute MnM. Minutes No. 10 dated "10" "06" 2021

Vice-rector for academic affairs

Zhautikov B.A.

Director of the M&M Institute

Rysbekov K.B.

Head of the MNnEP Department

Kakimov U.K

Representative of the Specialty Council from employers

Serikkanov A.S.