

OSH TECHNOLOGICAL UNIVERSITY named after academician M.M. Adyshev

CURRICULUM

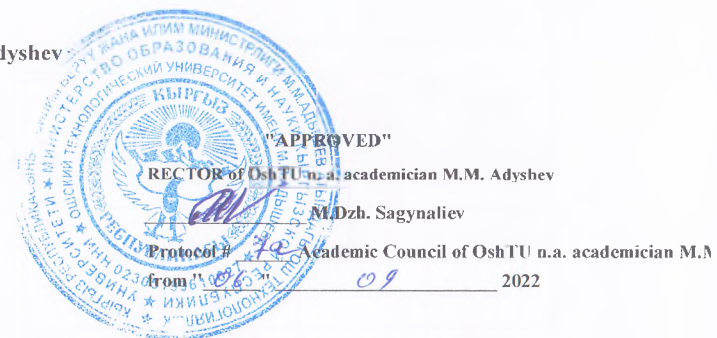
Direction: 520500 - CARTOGRAPHY AND GEOINFORMATICS

PhD educational program: CARTOGRAPHY AND GEOINFORMATICS

Qualification: DOCTOR BY PROFILE (PhD)

Study period: 3 YEARS

Education form: FULL TIME



1. Academic calendar

Year	Weeks of the academic year																																																						
	SEPTEMBER				OCTOBER				NOVEMBER				DECEMBER				JANUARY				FEBRUARY				MARCH				APRIL				MAY				JUNE				JULY				AUGUST										
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52			
1	EE				E	E	=	=	E	E	=	=	=	=	=	=	=	=				
2	R	R	R	R	R	R	R	R	R	R	R	R	R	SRI	SRI	SRI	SRI	SRI	E	=	=	=	=	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R		
3	=	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	E	=	=	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R

2. Summary of time budget in weeks

		1 Year			2 Year			3 Year			Total
		semester 1	semester 2	Subtotal	semester 3	semester 4	Subtotal	semester 5	semester 6	Subtotal	
EE	Entrance exam	5		5							5
.	Theoretical studies	16	16	32							32
E	Examination	2	2	4	1	1	2	1	1	2	8
R	Scientific-Research work, inc. a doctoral dissertation				13	19	32	19	13	32	64
SRI	Scientific - Research internship				5		5				5
PDD	Pre-defence of the doctoral dissertation								1	1	1
FPD	Final preparation of the doctoral dissertation								4	4	4
DD	Defense of the doctoral dissertation								1	1	1
=	Holiday	2	9	11	4	9	13	3	9	12	36
Total:		25	27	52	23	29	52	23	29	52	156

3. PLAN OF THE LEARNING PROCESS

№	Course title	ECTS	Type of lesson in hours						Reporting form			Distribution of hours by course														
			Total (in hours)	Aya.	Self-learning			Exam			1 year						2 year						3 year			
					lecture	Practical	lab				1 semester		2 semester		3 semester		4 semester		5 semester		6 semester					
											16 weeks	16 weeks	16 weeks	16 weeks	16 weeks	16 weeks	16 weeks	16 weeks								
lec	pract.	lab	lec	pract.	lab	lec	pract.	lab	lec	pract.	lab	lec	pract.	lab	lec	pract.	lab									
CLUSTER I																										
I. GENERAL COURSES CYCLE																										
D.1.0.	Mandatory courses	10	300	90	45	45		210																		
D.1.2.	Spatial Data Sciences (Data models, Data acquisition and integration)	10	300	90	45	45		210	2				45	45												
D.1.3.	Elective Courses	15	450	135	45	90		315																		
D.1.3.1	Research methodology and academic writing	5	150	45	15	30		105	1			15	30													
D.1.3.2	History and philosophy of science (Patenting and protection of intellectual property)	5	150	45	15	30		105	1			15	30													
D.1.3.3	Spatial Analysis	5	150	45	15	30		105	1			15	30													
	TOTAL for 1 CYCLE (in hours)		750	225	90	135		525				135	90													
	TOTAL for 1 CYCLE (in credits)	25										15	10													
CYCLE OF SPECIALIZED TRAINING DISCIPLINES																										
D.2.0.	Mandatory courses	15	450	135	60	45	30	315																		
D.2.1	GIS and Data visualization	10	300	90	45	45		210	1			45	45													
D.2.2	Remote Sensing	5	150	45	15		30	105	1			15		30												
D.2.3.	Elective Courses	20	600	180	60	30	90	420																		
D.2.3.1	Spatial Data Infrastructure	5	150	45	15	30		105	2				15	30												
D.2.3.2	Earth observation	5	150	45	15		30	105	2				15		30											
D.2.3.3	Positioning and navigation	5	150	45	15		30	105	2				15		30											
D.2.3.4	Geospatial Big Data	5	150	45	15		30	105	2				15		30											
	TOTAL for 2 CYCLE (in hours)		1050	315	120	75	120	735				135	180													
	TOTAL for 2 CYCLE (in credits)	35										15	20													
	TOTAL for 1 SECTION (in hours)		1800	540	210	210	120	1260				270	270													
	TOTAL for 1 SECTION (in ECTS)	60										30	30													

CLUSTER II																																								
RESEARCH WORK (INCLUDING PHD THESIS DEFENCE), PRACTICAL WORK AND INTERNSHIP																																								
№	Title	ECTS	Type of lesson in hours					Exam	Total weeks	Distribution by semester in ECTS																														
			Total (in hours)	Aya.	lecture					Self-learning	1 semester 16 weeks			2 semester 16 weeks			3 semester 16 weeks			4 semester 16 weeks			5 semester 16 weeks			6 semester 16 weeks														
					lab	lect	pract.				lab	lec	pract.	lab	lec	pract.	lab	lec	pract.	lab	lec	pract.	lab	lec	pract.	lab														
HHP.3.1	Scientific Research Work	100	3000	900			900		2100	3-6	83																													
HHP.3.2	Scientific Research Internship	10	300	90			90		210		3																													
	TOTAL for 2 SECTION (in hours)		3300	990			990		2310																															
	TOTAL for 2 SECTION (in ECTS)	110																																						
CLUSTER III																																								
FINAL STATE CERTIFICATION																																								
№	Title																																							
Γ.А.1	PHD THESIS PREPARATION AND DEFENCE	10	300	90			90		210	6	6																												90	
	TOTAL for 3 SECTION (in hours)		300	90			90		210																														90	
	TOTAL for 3 SECTION (in ECTS)	10																																					10	
	Exams																																							
	TOTAL (in hours)		5400	1620	210	1290	120	3780																															270	
	TOTAL (in credits)	180																																					30	

The curriculum was reviewed and adopted by the Academic Council of OshTU n.a. academician M.M. Adyshev, Protocol № ___ from _____ 20__ г.

Head of the Department of Postgraduate and Doctoral Studies

Z. Toktomamatova

Head of the Department of Software Engineering and Automated Systems

Candidate of Physical and Mathematical Sciences, Associate Professor Zh.N. Kutunayev