

PhD program in Geometry and Topology (2013)

The total minimum required number of credits:	91 credits
- Coursework:	21 credits
+ Basic courses:	09 credits
• Required:	06 credits
• Elective:	03/9 credits
+ Advanced foreign languages for academic purposes:	04 credits
+ Advanced courses:	06/24 credits
+ Overview:	02 credits
- Research	
- PhD Thesis:	70 credits

Available curriculum :

No	Code	Subjects	Credits	Credit hours			Prerequisite
				Lecture	Practice	Self-study	
I	Part 1. Coursework						
I.1	Basic courses		9				
I.1.1	Required		6				
1	MAT8001	<i>Homotopy theory</i>	3	15	0	30	
2	MAT8002	<i>Homological Algebra II</i>	3	15	0	30	
I.1.2	Elective		3/9				
3	MAT8003	<i>Cohomology Operations</i>	3	15	0	30	
4	MAT8004	<i>Algebraic curves – Elliptic curves</i>	3	15	0	30	
5	MAT8005	<i>Lie Groups and Lie Algebras</i>	3	15	0	30	

No	Code	Subjects	Credits	Credit hours			Prerequisite
				Lecture	Practice	Self-study	
I.2	Advanced foreign languages for academic purposes (choose one of languages below):		4				
6	ENG 8001	<i>Advanced English for Academic Purposes</i>	4	0	0	60	
	RUS 8001	<i>Advanced Russian For Academic Purposes</i>	4	0	0	60	
	FRE 8001	<i>Advanced French For Academic Purposes</i>	4	0	0	60	
	WES 8001	<i>Advanced General For Academic Purposes</i>	4	0	0	60	
	CHI 8001	<i>Advanced Chinese For Academic Purposes</i>	4	0	0	60	
I.3	Advanced courses		6/24				
7	MAT8004	<i>Algebraic curves – Elliptic curves</i>	3	15	0	30	
8	MAT8005	<i>Lie Groups and Lie Algebras</i>	3	15	0	30	
9	MAT8006	<i>Modules over the Steenrod algebra</i>	3	15	0	30	
10	MAT8007	<i>The hit problem and its applications</i>	3	15	0	30	
11	MAT8008	<i>Group cohomology</i>	3	15	0	30	
12	MAT8012	<i>Geometry and Topology seminar</i>	3	15	0	30	
13	MAT8013	<i>Cobordism and stable homotopy theory</i>	3	15	0	30	
14	MAT8014	<i>Knot theory and Low – dimensional Manifolds</i>	3	15	0	30	
I.4	Overview		2				
15	MAT8189	<i>Research Perspective Report</i>	2	0	0	30	
II	Part 2. Research (research planning, publishing ...)						
III	Part 3. Doctoral Thesis						
16	MAT9002	<i>Ph.D thesis</i>	70				
		Total	91				