

## PhD program in Cartography, Remote sensing and GIS (2013)

The total minimum required number of credits:	96 credits
- Coursework:	21 credits
+ Basic courses:	09 credits
• Required:	6/9 credits
• Elective:	3/9 credits
+ Advanced foreign languages for academic purposes:	4 credits
+ Advanced courses:	6/18 credits
+ Overview:	2 credits
- Research	
- PhD Thesis:	75 credits

### Available curriculum:

No	Code	Subjects	Credits	Credit hours			Prerequisite
				Lecture	Practice	Self-study	
<b>I</b>	<b>Part 1. Coursework</b>						
<b>I.1</b>	<b>Basic courses</b>		<b>9</b>				
<b>I.1.1</b>	<b>Required</b>		<b>6</b>				
1.	GEO 8036	<i>Methods of spatial statistics</i>	3	10	30	5	
2.	GEO 8037	<i>Modeling in geography</i>	3	20	20	5	
<b>I.1.2</b>	<b>Elective</b>		<b>3/9</b>				
3.	GEO 8038	<i>Cartography, remote sensing and GIS modelling</i>	3	10	30	5	
4.	GEO 8039	Standardization of spatial data	3	10	30	5	
5.	GEO 8040	Spatial data Infrastructure	3	10	30	5	
<b>I.2</b>	<b>Advanced foreign languages for academic purposes</b>		<b>4</b>				

6.	ENG 8001	Advanced foreign languages for academic purposes	4				
<b>I.3</b>	<b>Advanced courses</b>		<b>6/18</b>				
7.	GEO 8041	<i>Applied cartography, remote sensing and GIS in special topic and area</i>	2	10	10	10	
8.	GEO 8042	<i>Spatial data mining and spatial data uncertainty</i>	2	10	10	10	
9.	GEO 8043	<i>Utilization of natural resource and territory management</i>	2	10	10	10	
10.	GEO 8044	<i>Advanced remote sensing methods in geography</i>	2	10	10	10	
11.	GEO 8045	<i>Advanced GIS methods in geography</i>	2	10	10	10	
12.	GEO 8046	<i>Multimedia cartography in geography</i>	2	10	10	10	
13.	GEO 8047	<i>Atlas and distributed cartography/GIS</i>	2	10	10	10	
14.	GEO 8048	<i>Softwares in Cartography, Remote sensing and GIS</i>	2	10	10	10	
15.	GEO 8049	<i>Programming in cartography, remote sensing and GIS</i>	2	10	10	10	
<b>I.4</b>	<b>Overview</b>		<b>2</b>				
<b>II</b>	<b>Part 2. Research (research planning, publishing ...)</b>						
<b>III</b>	<b>Doctoral Thesis</b>		<b>75</b>				
16.	GEO 9004	Doctoral Thesis	75				
<b>Total</b>			<b>96</b>				