



CARTOGRAPHY

Programme type	Master's studies (university)
Field of study	Geography
Study area	Physical Sciences
Qualification awarded	Master in Physical Sciences
Length of programme	2 years (4 semesters)
Scope of programme (ECTS)	120
Language of instruction	English
Location	Vilnius, Lithuania
Starting date	1 st of September, 2017
Tuition fee EU students	3236 EUR/year
Tuition fee Non-EU students	3236 EUR/year

PROGRAMME DESCRIPTION

- The objective*

Prepare a broad range of mapping professionals capable of independently and consistently carry out natural and social phenomena and processes, research, analysis, and dissemination of spatial prognostic cartographic modelling required public aspirations practical implementation.

- Career opportunities*

Graduates can work in cartographic and topographic public and private enterprises, in scientific and in education-municipal institutions.

- Access to further studies*

Masters of cartography may continue their studies in doctoral studies (third stage) of the natural, social and nearby sciences branches (physical geography, measurement engineering, computer science, sociology) in Lithuanian and foreign universities.

KEY LEARNING OUTCOMES

Learning outcomes:

1. Having completed cartography programme, a graduate has complex understanding between functions and interaction of nature and anthropogenic structures; principles of sustainable development; systematic and critical approach.
2. Understanding scalability and existence of geographic systems.
3. Recognise cartographic modelling in the interdisciplinary research.
4. Ability to formulate scientific and applied research objectives, shape content and possible results.
5. Strategic analyse and evaluate cartographic projects requirement and complication degree.
6. Formulate results of scientific research.
7. Perform quantitative and qualitative data analysis; formulate and present research results; analyse of scientific reference sources, juridical acts.
8. Use varied technologies for scientific research, information search, evaluation and recall.

COURSE INFORMATION

The programme has the following structure

Course Type	1st Semester	2nd Semester	3rd Semester	4th Semester
Compulsory Courses	Database design (8 ECTS)	Cartographic information management (6 ECTS)	GIS methodology and applications (8 ECTS)	Master seminar (5 ECTS)
	Application programming for spatial data systems (8 ECTS)	Cartographic communication (4 ECTS)	Mathematical cartography (6 ECTS)	Master thesis (25 ECTS)
	Cartology (6 ECTS)	Scientific project (9 ECTS)	Map publishing technologies (6 ECTS)	
	Methodology of scientific research (4 ECTS)	Remote mapping (5 ECTS)	Methodology of mapping (6 ECTS)	
	Topographical maps (4 ECTS)			
Elective Courses		Special purpose database (6 ECTS)	Dissemination of cartographic information on the Internet (4 ECTS)	
		GIS models (6 ECTS)	Map browsers and web-services (4 ECTS)	

GRADUATION REQUIREMENTS

The student must be to pass all obligatory and embrace arbitrary exams, prepare scientific research project and prepared and defend individual master thesis. Scientific research project and master thesis is presented for public defence. The commission evaluates qualification of the student in accordance with the goals of the programme.

ADMISSION REQUIREMENTS AND SELECTION CRITERIA

- Bachelor's degree or its equivalent in Geography, Physical Geography, Geology, Environmental Sciences, Mathematic, Informatics, Informatics Engineering;
- English language proficiency - the level not lower than B2 (following the Common European Framework of Reference for Languages (CEFR)).

EXAMINATION AND ASSESSMENT REGULATIONS

Examination evaluated for 10-point system. Written exam has three questions. Answers to each question are assessed individually, after 10 points, led by their average.

Scientific paper and master thesis evaluated for 10-point system, after summing up the scores and calculating the average.

The final mark is average of evaluations by the commission members and if necessary, approved by the chair after discussion

Academic contact	Admission contact
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