

COURSE OF DOCTORAL STUDIES

Course title	Field of science (branch) code	University / Faculty	Institute / Department
Methodology of thematic cartography	Natural Sciences (Physical Geography) N 006	Vilnius University / Faculty of Chemistry and Geosciences	Institute of Geosciences / Department of Cartography and Geoinformatics
Study methods	Number of credits allocated	Study methods	Number of credits allocated
Lectures		Seminars	
Individual work	8	Consultations	2
Course annotation			
<p>The object of thematic cartography. The conception of thematic cartography, its place in the branch of cartography, connection with others sciences.</p> <p>Content of thematic map, structure of thematic map, classification principles of thematic maps.</p> <p>The nature of spatial dispersion of natural and social phenomena and its mapping methods.</p> <p>Non-scale, linear and area signs, cartographic sign systems, continuous and discontinuous scales of quantitative indicators, compilation of indicator scales.</p> <p>Cartographic image resolution, symbols, lines, colours of thematic maps.</p> <p>Composition of thematic maps, inscriptions in maps, differentiation of inscription symbols.</p> <p>Natural thematic map class: geophysical, geological, geomorphological, climatic phenomena, meteorological and synoptic, hydrological, oceanographic, soil, flora, fauna, natural landscape components.</p> <p>Social phenomena map class: political, administrative, population, social, economic, communication, financial, historical.</p> <p>Natural - social phenomena map class: medical, land reclamation, zoological.</p> <p>Special maps: maritime navigation, air navigation, infrastructure.</p> <p>Direction of thematic maps using.</p>			
Required readings			
Cartography in the European Renaissance. 2007. Ed. D. Woodward. Chicago: The University of Chicago Press. 2272 p.			
Lambert N., Zanin Ch. 2020. Practical Handbook of Thematic Cartography Principles, Methods, and Applications. Routledge: Taylor and Francis group. 224 p.			
MacEachren A.M. 2004. How maps work: presentation, visualization and design. New York – London: The Guilford Press. 513 p.			
Wood D., Fels J. 2008. The natures of maps: cartographic constructions of the natural world. Chicago: University of Chicago Press. 231 p.			
Bertin J. 2011. Semiology of Graphics: diagrams, networks, maps. Esri Press.			
Consulting lecturers name, surname	Degree	The most important works in the field of science (branch) have been published during the last 5 years	
Algimantas Česnulevičius	dr. habil.	<p>Morkūnaitė R., Baurėnas A., Česnulevičius A., 2017. The recent investigations and providences about active aeolian forms in Curonian Spit (Lithuania). Acta Geographica Silesiana. 11(1), 23- 29.</p> <p>Łabuz T.A., Grunewald R., Bobykina V., Chubarenko B., Česnulevičius A., Baurėnas A., Morkūnaitė R., Tõnisson H., 2018. Coastal dunes of the Baltic Sea shores: a review. Quaestiones Geographicae, 37(1). 47–71.</p> <p>Morkūnaitė R., Baurėnas A., Česnulevičius A., Dobrotin N., Baubiniėnė A., Jankauskaitė M., Kalesnikas A., Mačiulevičiūtė-Turlienė, N. 2018. Changes in quantitative parameters of active wind dunes on the south-east Baltic Sea coast during the last decade (Curonian Spit, Lithuania). Geological Quarterly, 62(1), 38–47,</p> <p>Česnulevičius A., Baurėnas A., Bevainis L., Ovodas D., Papšys K. 2018. Applicability of Unmanned Aerial Vehicles in Research on Aeolian Processes. Pure and Applied Geophysics, 175, 3179–3191.</p> <p>Česnulevičius A., Baurėnas A., Bevainis L., Mačiulevičiūtė-Turlienė, N. 2019. Comparison of Accuracy of UAV Aerials and Ground Measurements in the Curonian</p>	

		Spit Dunes. <i>Baltic Journal of Modern Computing</i> , 7(4), 571-585 Česnulevičius A., Baurėnas A., Bevainis L., Ovodas D. 2019. A Comparison of the Influence of Vegetation Cover on the Precision of an UAV 3D Model and Ground Measurement Data for Archaeological Investigations: A Case Study of the Lepelionys Mound, Middle Lithuania. <i>Sensors</i> , 19(23), 5303.
Approved by the Doctoral Committee for Physical Geography (N006) on 9 th of March 2021, protocol no. (4.20 E) 610000-KT-24		
Committee Chairman assoc. prof. dr. D. Pupienis		