

COURSE OF DOCTORAL STUDIES

Course title	Field of science (branch) code	University / Faculty	Institute / Department
Drinking water hydrogeochemistry and Water supply	Natural Sciences (Geology) N 005	Vilnius University / Faculty of Chemistry and Geosciences	Institute of Geosciences / Hydrogeology and engineering geology
Study methods	Number of credits allocated	Study methods	Number of credits allocated
Lectures		Seminars	
Individual work	11	Consultations	
Course annotation			
Water sources and consumers, consumption norms and rates, water supply, outdoor water supply networks and water storage tanks. Groundwater collectors, their types and constructions. Concept of drinking water quality, water properties and the importance of the water composition for the human health. Factors and processes influencing groundwater quality formation. Groundwater safety and quality control issues. Water quality improvement methods and their selection principles. Water treatment devices and methods.			
Required readings			
Sakalauskas A., Diliūnas J., Jankauskas J., Kisielis V. Vandentiekla/ Vadovėlis. 2016, Vilnius. Technika.			
Guidelines for drinking-water quality - 4th ed. 2011. WHO			
Deutsch, W.J. Groundwater geochemistry: fundamentals and applications to contamination. Lewis Publishers, Boca Raton, New York, 1997.			
Klimas A. Geriamojo vandens hidrogeochemija:vadovėlis aukštosios mokyklos. 2003. Vilnius. VUL			
Sakalauskas A., Diliūnas J., Jankauskas J., Kisielis V. Vandentiekla/ Vadovėlis. 2016, Vilnius. Technika.			
Consulting lecturers Name, surname	Degree	The most important works in the field of science (branch) have been published during the last 5 years	
Jurga Arustienė	Dr.	Slavinskienė G., Jurevičius A., <i>Arustienė J.</i> Evolution of inorganic pollutants from landfills in shallow aquifers of different hydrogeological systems in Lithuania // Environmental Science and Pollution Research. - 2018. - Volume 25, Issue 33. - P.33709–33723 <i>Arustienė J.</i> Augalų apsaugos produktų veikliųjų medžiagų tiriamasis monitoringas gruntiniame vandenyje // Geologijos akiračiai. - 2018. - Nr. 3. - P. 12–19 : iliustr. - Santr. angl. - Bibliogr.: p. 18–19	
		Højberg, A. L., Hansen A. L., Wachniew P., Žurek, A. J., Virtanen S., <i>Arustiene J.</i> , Strömqviste J., Rankinen K, Refsgaard J/C. Review and assessment of nitrate reduction in groundwater in the Baltic Sea Basin. Journal of Hydrology: Regional Studies 12 (2017) 50–68.	
Approved by the doctoral committee of Geology (N 005) on 1 st of December 2022 (No. (7.17 E) 15600-KT-467).			
Committee Chairman prof. dr. Sigitas Radzevičius			