NAME OF THE COURSE	ENVIRONMENTAL GEOCHEMISTRY					
Code		Year of study	1., I semester			
Course teacher	Esad Prohić, PhD, Full professor, tenure	Credits (ECTS)	5.0			
Associate teachers		Type of instruction (number of hours)	L	S	E	F
			30	5	10	
Status of the course	compulsory	Percentage of application of e-learning	/			

COURSE DESCRIPTION	
Course objectives	The goal of the course is to provide the basic theoretical and practical knowledge about the processes related to environmental geochemistry. The aim is to train students in identifying and addressing the causes and consequences of global environmental problems and trends of pollution in various environmental media.
Course enrolment requirements and entry competences required for the course	Undergraduate qualification (6th level of EQF or CROQF).
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	The student will: - solve the causes and consequences of global environmental problems - analyse the development of pollution in various environmental media - analyse the ozone layer - analyse the acid rain - analyze the greenhouse effect - define the concept of geo medicine - define the basic criteria of environmental ethics
Course content broken down in detail by weekly class schedule (syllabus)	1. Glossary, introductory remarks, definition and basic concept of environmental geochemistry 2 -3. Environment in crisis; analysis of dynamic environmental system, equilibrium, geochemical system, feedback mechanism 4. Biogeochemical system of carbon 5. Greenhouse effect, greenhouse gases, effects, causes, consequences 6. Biogeochemical cycles of ozone and halogenides 7. Ozone layer depletion, ozone hole, causes, consequences. 8. Biogeochemical cycles of sulphur and nitrogen 9. Acid rains, pH of rainwater, causes and consequences of acid rains, case studies 10 -11. Chemical time bomb, definition, explanation of concept, prediction of CTB, case studies 12 - 13. Trace elements and health, concept of geomedicine,. case studies 14 - 15. Problems of trace element analysis in environmental sciences. 17. Introduction to environmental ethics
Format of	☒ **lectures**	☒ **independent assignments**

instruction	☒ **seminars and workshops** ☒ **exercises** ☐ *on line* in entirety ☐ partial e-learning ☐ field work	☐ multimedia ☐ laboratory ☐ work with mentor	
Student responsibilities	Regular attendance of classes, tests, written and oral exam¸		

Screening student work *(name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course)*	Class attendance	1.5	Research		Practical training	
	Experimental work		Report			
	Essay		Seminar essay			
	Tests	0.5	Oral exam	2.0		
	Written exam	0.5	Project	0.5		

Grading and evaluating student work in class and at the final exam	Frontal lectures. Exercises in groups. Preparing written assignment about a selected subject. Attending classes, preliminary exams, homework assignments, seminars and individual work on specific problems

Required literature (available in the library and via other media)	Title	Number of copies in the library	Availability via other media
	Baird, C Cann, M (2004) . Environmental Chemistry, W. H. Freeman; 3rd edition, 650 p. ;		
	vanLoon G.W. & Duffy S.J. (2005) : Environmental chemistry - a global prespective, Oxford University press, 515 str.		
	Berner, E.K. & Berner, R.A.. (1996): Global environment : Water, Air, and Geochemical Cycles, Prentice Hall, INC, USA.		
	E. Turban: Decision Support and Expert Systems (Management Support Systems), Macmillan Publishing Company New York, 1993.		

Optional literature (at the time of submission of study programme proposal)	To be defined in accordance with student's particular interests and theme of student's assignment.
Quality assurance methods that ensure the acquisition of exit competences	Quality assurance will be performed at three levels: (1) University level, through questionnaires; (2) Faculty level by Quality Control Committee; (3) Lecturer's level.
Other (as the proposer wishes to add)	