

COURSE TITLE	GEOCHEMISTRY OF CONTINENTAL WATERS	CODE: GC 5101
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LEVEL (UG-undergraduate/M-master) AND YEAR OF STUDY (1,2,3,4)	M2	SEMESTER	I	STATUS (CO-COMPULSORY/OP-OPTIONAL)	CO
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NUMBER OF HOURS/ WEEK				TOTAL HOURS/ SEMESTER	TOTAL HOURS OF INDIVIDUAL WORK	CREDITS	EVALUATION TYPE (D-DURING THE SEMESTER, C-COLLOQUIUM, E-EXAM, M- MIXT)	LANGUAGE
L	S	P	Pr.					
2		2		56	184	8	M	English

LECTURER	POSITION, NAME AND SURNAME	DEPARTMENT
	PhD Professor Gheorghe Popa	Geology

PREREQUISITES	Mineralogy; Petrology; Analytical Chemistry
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OBJECTIVES	Knowledge of hydrogeochemical processes within the framework of continental zones Evolution of the chemistry of natural waters Hydrogeochemical balance sheets
COURSE CONTENTS	General notions: classification of waters according to genesis, chemistry, localisation The geochemistry of continental hydrogeochemical reservoirs The chemistry of precipitation The evolution of the chemistry of natural waters; sources and intensity of their contamination Hydrogeochemical processes at soil level Hydrogeochemical processes in various types of rocks Hydrogeochemical processes in river systems (including estuaries) Hydrogeochemical processes in lakes Hydrogeochemical balance sheets.
PRACTICAL	Determination of the chemistry of natural waters Establishment of a hydrogeochemical balance sheet on the basis of one's own analyses Point estimation of the valorisation field of the analysed water
TEACHING METHODS	Lectures with projections (Power Point); In practical work, each student will receive, at the beginning of the term, a water sample which he/she shall analyse and interpret
RECOMMENDED READING	Drever J.I. (1997). The geochemistry of natural waters. Prentice Hall, New Jersey. Fetter C.W. (1994). Applied hidrogeology Macmillan College Pub. Co., New York. Fetter C.W. (1999). Contaminant hidrogeology Prentice Hall, New Jersey. Popa Gh. (2002). Hidrogeochimie. Ed. Universității „Al.I.Cuza”, Iași. Popescu Rodica (2000). Hidrogeochimie. Ed. Univ. din București.

ASSESSMENT METHODS	Conditions	Integral fulfillment of lab work obligations
	Criteria	Precision and interpretation of lab analyses
	Way of evaluation	Each student will be marked for each laboratory session These partial marks will be used to calculate an average (A) that represents an evaluation of activity for practical work each term At the end of the term, the student will sit a written examination on what has been taught in the course (mark B)
	Formula of the final mark	The final mark (FM) will be calculated as a weighted average: Practical work 50%; Examination result 50%; $FM = 0.50A + 0.50B$