

COURSE TITLE	ENVIRONMENTAL GEOCHEMICAL HAZARDS	CODE: GC 5204
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LEVEL (UG-undergraduate/M-master) AND YEAR OF STUDY (1,2,3,4)	M2	SEMESTER	II	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.					
1		2		36	174	7	M	Romanian/English

LECTURER	POSITION, NAME AND SURNAME	DEPARTMENT
	PhD Professor Gabriel Ovidiu Iancu	Geology

PREREQUISITES	Geochemistry
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OBJECTIVES	Knowledge of the principal geochemical hazards and risks and measures to prevent or reduce their damaging effects
COURSE CONTENTS	Pollution caused by non-metals (F, As), heavy metals (Cd, Pb, Hg, Zn, etc.) and radioactive metals (U, Th, Ra); Artificial replenishment of aquifers, Deep-level injection of waste; Sterile dumps; Acid rain; Urban waste, Pesticides
PRACTICAL	Detailed presentation of geochemical hazards occurring in Romania or globally: heavy-metal pollution in urban areas, cyanide pollution in mining areas etc.; Testing and analysis of zones subject to geochemical risks (practical case – Jassy Municipality)
TEACHING METHODS	Lectures based on video projections, discussion, problem-solving

RECOMMENDED READING	Förstner U. (1998). Integrated pollution control, Springer Verlag, 505 p.; Pirone N., Mahaffey K. R. (2005). Dynamics of mercury pollution on regional and global scales, Springer Verlag, 744 p.; Popek E. P. (2003). Sampling and analysis of environmental chemical pollutants. A complete guide, Academic Press, 366 p.; Reeve R. N. (2002). Introduction to environmental analysis, John Wiley & Sons, LTD; Vallero D. A. (2004). Environmental Contaminants: Assessment and Control, Elsevier Academic Press, 801 p.; Zhu C., Anderson G. (2002). Environmental applications of geochemical modelling, Cambridge University Press, 284 p.
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ASSESSMENT METHODS	Conditions	Fulfilment of student course and practical work obligations
	Criteria	Cumulative evaluation
	Way of evaluation	Written tests throughout the term and written examination
	Formula of the final mark	0.50 D + 0.50 E