COURSE TITLE	WEATHERING OF ROCKS	CODE: GC 4202

LEVEL (UG-undergraduate/M-master) AND YEAR OF STUDY (1,2,3,4)	M1	SEMESTER	II	STATUS (CO-COMPULSORY/OP-OPTIONAL)	CO

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 Reader Dan Stumbea	Geology

PREREQUISITES	Crystallography; Mineralogy; Petrology (igneous, metamorphic, sedimentary); Metallogeny; Geochemistry; Hydrogeochemistry; Biogeochemistry

OBJECTIVES	Knowledge of: - factors of weathering - weathering processes - weathering products - analytical methods used in the study of rock weathering - experimental approaches - evolution of magmatic and metamorphic rocks under temperate climatic conditions
COURSE CONTENTS	1. Factors of weathering 2. Processes of weathering (physical weathering, chemical weathering, organic weathering) 3. Weathering Products 4. Analytical methods in rock weathering approaches 5. Experimental approaches 6. Evolution of magmatic and metamorphic rocks under temperate climatic conditions 7. Evolution of ore deposits under weathering conditions 8. Influence of weathering processes on some environmental systems (soils, sediments, waters, atmosphere)
PRACTICAL	1. Identifying the texture of mineralogical associations generated by weathering processes 2. Identifying the mineralogical associations generated by weathering processes 3. Identifying the chemical features of the mineralogical associations generated by weathering processes 3.1 Geochemical balance of major elements 3.2 Geochemical balance of minor elements 3.3 Geochemical processes at the solid/solution interface 3.4 Measuring the dissolution rate of minerals under weathering conditions 4. Experimental approaches
TEACHING METHODS	Lectures, debates, learning through discovery

RECOMMENDED READING	Bland, W., Rolls, D. (1998). Weathering. An Introduction to the scientific principles. Arnold, Londra, 272p. Pacquet, H. (1997). Soils and sediments. Springer, Berlin, 370p. Parker, A., Rae, J. E. (1998). Environmental interactions of clays. Springer, Berlin, 272p. Stumbea, D. (2007). Geologia zăcămintelor de minereuri. Casa Ed. „Demiurg", Iaşi, 209p

ASSESSMENT METHODS	Conditions	Active participation in lectures and seminars.
	Criteria	Cumulative Evaluation
	Way of evaluation	Written tests
	Formula of the final mark	0.30 E + 0.70 D