

COURSE TITLE	GEOCHEMISTRY OF THE EARTH'S CRUST	CODE: GC 4201
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LEVEL (UG-undergraduate/M-master) AND YEAR OF STUDY (1,2,3,4)	M1	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.					
2		2		56	184	8	M	English

LECTURER	POSITION, NAME AND SURNAME	DEPARTMENT
	PhD Assoc. Professor Constantin Cocîrță	University of Tours, France

PREREQUISITES	Mineralogy; Petrology (magmatic, metamorphic, sedimentary); Metallogeny 1,2; Geochemistry; Hydrogeochemistry
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OBJECTIVES	Students will accumulate knowledge on the following: 1. The structure of the earth's crust 2. The petrography of the earth's crust 3. The geochemistry of the continental crust 4. The geochemistry of the oceanic crust 5. Geochemical migration in the earth's crust
COURSE CONTENTS	The composition of the continental crust. The composition of the lower continental crust. The average composition of the continental crust. The composition of the oceanic crust. Mid-oceanic rist, oceanic island, plateau and submarine mountain basalts; geochemical characteristics. Intra-crust differentiation. Partition of minor elements in crustal conditions
PRACTICAL	Average chemical composition of the earth's crust. Variation diagrams (Harker, Masuda). Influence of ionic rays, electrical charges, pressure and temperature on the partition of minor elements in silicates. Case studies. Geochemical zoning of metamorphic minerals. Migration of chemical elements in the upper part of the crust (decomposing, melange crusts).
TEACHING METHODS	Lectures, discussion, problem-solving

RECOMMENDED READING	Drever J. I., et al. (1988). Geochemical cycles: the continental crust and the oceans. In C. B. Gregor et al. (Eds.) , Chemical cycles in the Evolution of the Earth, 17-53. Wiley, New-York, 276 pp. Holland H. D., and Karl K. Turekian K. K. (Eds) (2004). Treatise on Geochemistry, vol. 3, Elsevier.
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ASSESSMENT METHODS	Conditions	Fulfilment of course and laboratory obligations
	Criteria	Cumulative evaluation
	Way of evaluation	Course and laboratory evaluation and final online examination
	Formula of the final mark	0.50 E + 0.50 Course work evaluation