MASTER'S DEGREE
ENVIRONMENTAL GEOCHEMISTRY
1ST YEAR OF STUDY, 1ST SEMESTER

COURSE TITLE	PROFESSIONAL SOFTWARE
COURSE CODE	31020030010PM1211204
COURSE TYPE	full attendance
COURSE LEVEL	2nd cycle (master's degree)
YEAR OF STUDY, SEMESTER	1st year of study, 1st semester
NUMBER OF ECTS CREDITS	6
NUMBER OF HOURS PER WEEK	3 (0 lecture hours + 3 seminar hours)
NAME OF LECTURE HOLDER	Assistant Professor Andrei Ionuţ Apopei
NAME OF SEMINAR HOLDER	Assistant Professor Andrei Ionuţ Apopei
PREREQUISITES	Geoinformatics

A GENERAL AND COURSE-SPECIFIC COMPETENCES

General competences:

→ Effectively using additional scholarly sources and assisted learning resources in order to devise a research paper using specialized software

Course-specific competences:

→ Using knowledge of Geoinformatics in order to present and interpret geological processes, in concrete situations or as part of projects, programs or activities aimed at analyzing and interpreting natural phenomena

→ Properly using specific software for the quantitative and qualitative analysis of minerals, rocks, soil and water

B LEARNING OUTCOMES

Upon successfully completing the discipline, students become capable of using software such as Petrel, GIS, EndNote or Origin for various field-related projects

C LECTURE CONTENT

Week	Title of lecture	Teaching methods	Duration
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D RECOMMENDED READING FOR LECTURES

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E SEMINAR CONTENT

Week	Title of seminar	Teaching methods	Duration
1.	Managing bibliographical references	Application in the geoinformatics laboratory	3 hours
2.	Devising and managing bibliographies (EndNote)	Application in the geoinformatics laboratory	3 hours

	3.	Graphical representations: - data management Various types of specific graphs and diagrams	Application in the geoinformatics laboratory	3 hours
	4.	The graphical interface and main functions of Petrel	Application in the geoinformatics laboratory	3 hours
	5.	Petrel: Exercises on the interpretation of seismic data, simple surfaces and networks, geometric modelling (volume), displaying results and data by means of graphs, the representation of elements of tectonics	Application in the geoinformatics laboratory	12 hours
	6.	Introductory notions of Topography	Application in the geoinformatics laboratory	3 hours
	7.	Basic notions of GIS (Geographic Information Systems): - Georeferencing maps - Digitizing thematic maps Managing the information from tables of attributes	Application in the geoinformatics laboratory	12 hours
	8.	Geographic Information Systems and their role in geological applications; examples of projects; steps in the creation of a GIS database	Application in the geoinformatics laboratory	3 hours

F	RECOMMENDED READING FOR SEMINARS
	- Complete EndNote User Guide (http://endnote.com/training) - Origin 8.6 Getting Started Booklet - Ormsby T., Napoleon E. J., Burke R., Groessl C., Bowden L. (2010) Getting to Know ArcGIS Desktop
G	EDUCATION STYLE

LEARNING AND TEACHING METHODS	Application in the geoinformatics laboratory
ASSESSMENT METHODS	Oral exam (50%) and continuous assessment (50%)
LANGUAGE OF INSTRUCTION	English