Study programme: Bachelor with honours in Geography

Course title: Field methods in Geoecology (GE403)

Teacher(s): dr Biljana Basarin / dr Mlađen Jovanović

Status: elective

ECTS: 6

Requirements: none

Learning objectives

Training students for independent fieldwork. Knowing and recognizing the characteristics of rocks, soil and water, and contemporary geomorphological processes, will enable students to select the optimal methods and sampling techniques, and present the results of field research on the geoecological maps.

Learning outcomes

Students will gain experience of their own perception of geoecological phenomena. Being qualified for independent fieldwork – geological section preparation and description, sampling of rocks, soil and water. Students should acquire the ability to produce concise and meaningful written and graphic expression of the existing cartographic material.

Syllabus

Theoretical part:

Introduction: Geospheres - lithosphere, pedosphere, atmosphere, hydrosphere.

Classification and identification of rocks. Igneous and metamorphic rocks. Sedimentary environment and sedimentary rocks. Modern geomorphological processes. Soil classification.

Cartography in Geoecology - topographic and geologic maps. Sample and sampling - basic concepts. Methods and techniques of rock and soil sampling. Selection and preparation of the profile. Profile description. Air sampling methods. Water sampling methods. Geoecological mapping. Interpretation of the results of fieldwork.

Practical part:

Fieldwork: orientation in the nature and on the map. Identifying types of rocks and minerals in the field. Measuring the position of the layers. Introducing to erosion processes. Field notebook. Sampling. Geoecological mapping.

Literature

Maley, T.S. 2005. Field Geology Ilustrated. Mineral Land Publications, Idaho.

Tomanec R., 2000: Metode ispitivanja mineralnih sirovina u PMS. – Izdanje: RGF, Beograd. CD. Dimitrijević, M.D. 1978. Geološko kartiranje. ICS, 1-486.

Barnes, J.W. & Lisle, R.J (2004): Basic Geological Mapping (fourth edition). John Wiley & Sons, Ltd, England.

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Weekly teaching load 5 (75)	Lectures 3	Exercises 2

Methods of Teaching

Lectures Illustration and Demonstration Practical skills Fieldwork

Grading method (maximu 100 points)

Pre-examination assignments	points	Final examination	points
Activities during lectures	0-5	Written examination	
Activities during exercises	0-5	Oral examination	30-45
Colloguia	20-40		
Seminar paper	0-5		