

# Pedology (1st Year of study, 1st SEMESTER) Nr. credite transferabile 5

Credit value (ECTS) 4

## Course category

Domain (Imposed)

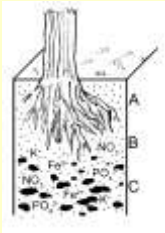
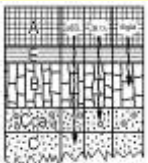
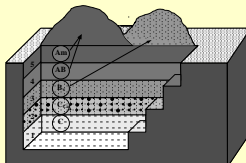

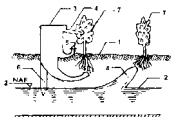
Course holder: Conf. dr. Feodor FILIPOV

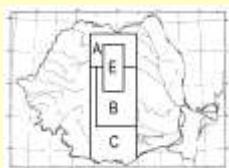
## Discipline objectives (course and practical works)

The aim of the course is to have students acquire knowledge on soil constituents, soil properties and soil horizon. Students will also study the soil formation factors and soil formation processes..

Practical works seek to familiarize students with minerals rocks classes and deposits resulted after weathering. Morphological description of soil horizon and recognition processes which were formed are the another main objectives. In the laboratory there are representative collections of rocks, minerals and soil macromonoliths taken to a depth of 2m. Collection of soil (84 monoliths) will allow students to recognize the representative soil units.

## Contents (syllabus)

Course (chapters/subchapters)	
	<b>Practical application of Pedology:</b> This chapter includes the concept of soil and research methods in soil survey. The chapter concludes with soil survey applications in economy, especially in agricultural field.
	<b>2. Mineral and organic soil constituents:</b> Rocks - source of mineral soil constituents; Physical and chemical weathering; Soil biota; Humus quality
	<b>5. Soil formation and composition:</b> Soil profile; Soil forming processes; Soil horizons
	<b>Soil properties:</b> Soil Texture and Structure; Porosity; Soil colour; Ion exchange indicators; soil colloids.
	<b>Soil water and air</b> Physical and chemical properties of the water; Soil moisture; Water regime; air regime in soil



**Natural factors of soil formation.**

**System of Romanian Soil Taxonomy (SRTS, 2003)**

**Classes:** Protisols; Chernisols; Cambisols; Luvisols; Spodosols; Vertisols; Hydrosols; Salsosols; Antrilsols

Practical works
Presentation Laboratory of Soil Science; labor protection rules; Laboratory equipment; fair practices in Pedology laboratory.
Recognition and description of minerals
Recognition and characterization of igneous metamorphic and sedimentary rocks
Recognition in the field of colluvium, colluvium and alluvium
Determination soil texture and structure. Recognition of new soil formations
Soil profile, soil horizons and processes. Will be used as a teaching collection of soil monoliths and micromonoliths from different climatical zones

**Bibliography**

1. Filipov F., - Pedologie. Ed. "Ion Ionescu de la Brad" Iași. 2005.
2. Teșu C. - Pedologie, Atelierul de Multiplicare, Universitatea Agronomică Iași 1994.
3. Teșu C., Avarvarei I., - Lucrări practice Pedologie. Atelierul de Multiplicare, Universitatea Agronomică Iași, 1990.
4. Teodorescu soare Eugen, 2012- Pedologie. Minerale și roci. Îndrumător practic

**Evaluation**

Evaluation form	Evaluation Methods	Percentage of the final grade
Exam	Oral examination	60%
Appreciation of the activity during the semester	Oral assessment during the semester, verification tests and final laboratory colloquium.	40%

**Contact**

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