Pedology (IInd Year of study, IVrd SEMESTER)

Credit value (ECTS) 3

Course category
Domain (Imposed)

Course holder:
Assoc. Prof. PhD. Feodor FILIPOV

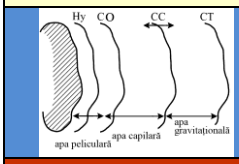
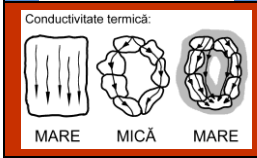
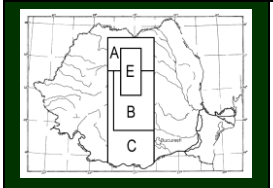
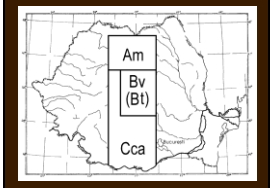
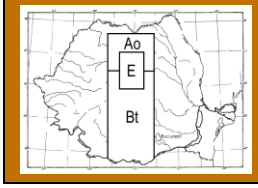
Discipline objectives (course and practical works)

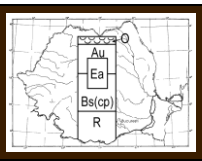
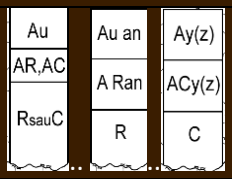
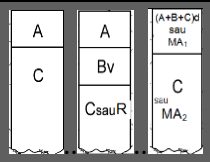
The aim of the course is to have students acquire knowledge on taxonomic descriptions, morphological characters and physical chemical of the main soil horizons that have practical implications. Students will also study the mai taxonomic units of Soil Taxonomy.

The main objective of the course is that graduates know pedologie can make a short description of major taxonomic units: summary description of parent material: environment; profile development; regional distribution; management and use.

Practical works seek to familiarize students with technical work in pedology laboratories and knowledge of some methods of chemical and phisycal anallyses. Collection of soil (84 monoliths) will allow students to recognize and diagnose the representative soil units.

Contents (syllabus)

Curs (Capitole/subcapitole)	
	**I.Soil air and water:** Characteristics of water: Soil water amount; Soil water constant; Suction; Water flow into and through soil; Flow in stratified soil; Vapor flow; Moisture regime; Soil air composition; Air movement.
	**II.Soil climate:** Sunshine-irradiation and heating; Movement of heat through soil; Controlling ground-level climates.
	**III. Soil Taxonomy:** Characteristics of soil classifications; Genetic and morphological soil classifications; Taxonomia solurilor din România; Cadrul natural de formare a solurilor din România
	**IV. Cernisols class (CER):** **K**astanoz**e**ms (**KZ**) ; **C**hernoz**e**ms **CZ**); Phaeozems (**FZ**) ; Rendzic Soil (Rendzina **RZ**).
	**V. Luvisols class:** Preluvosols or Haplic Luvisols; Luvosoluri or Luvisols; Planosols; Alosols.

	**VI. Spodisols class:** Prepodzols or Entic Podzols; Podzols;
	**VII. Classes:** **Hidrisoluri** (Stagnosol and Gleiosols)**;** **Andisols (Andosols)** **Histisoluri** (Histosol).
	**VIII. Classes:** **Hidrisols** (Stagnosoluri şi Gleiosoluri)**;** **Salsodisoluri** (Solonceacuri şi Soloneţuri); **Histisols** (Histosol).
	**IX. Classes:** **Protisols** (Regosols, Litosols, Aluvioasoluri or Fluvisols, Psamosols or Arenosols) **Cambisols** (Eutricambosols and Districambosols) **Antrisols** (Antrosols and Tehnosols)

Practical works
Establisment of representative location for soil profile
Soil sampling
Approximate setting of soil texture in the field
Approximate setting of soil moisture
Determination of new soil formation and artefacts
The establishment of soil structure
Determination of soil pH, Ca CO_3 content, soluble salts content
Morphological characterization and soil diagnosis

Bibliography

1. Blaga Gh. **Filipov F**., Rusu I., Udrescu S., Vasile D. - *Pedologie*. Ed. ACADEMIC PRESS, Cluj – Napoca, 2005.
2. F**ilipov F**., Lupascu Ghe. - *Pedologie*. Alcătuirea geneza și clasificarea solurilor. Editura. Terra nostra, Iasi, 2003
3. **Filipov F**., - *Pedologie*. Ed. "Ion Ionescu de la Brad" Iaşi. 2005.
4. Merlescu Er., - *Solurile României*. Curs litografiat, IAI Iaşi.
5. Teşu C. - *Pedologie*, Atelierul de Multiplicare, Universitatea Agronomică IaşI 1994.
6. Teşu C., Avarvarei I., - *Lucrări practice Pedologie.* Atelierul de Multiplicare, Universitatea Agronomică Iaşi,1990.
7. Teodorescu Soare Eugen, 2012- Pedologie. Minerale şi 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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