Course Information Sheet

University: *University of Prešov in Prešov*	
Faculty: *Faculty of humanities and natural sciences*	
Code: *2EKO/PEDOL/22*	**Title of Course: Soil Science**
Form of Study: *Lectures, practical lessons* **Number of contact hours:** *1 hour lectures / 2 hours practical lessons per week* **per week:** *1/2* **per level/semester:** *10 lectures, 20 practical lessons, 120 hours of self-work*	
Number of credits: *5*	
Semester: *2nd year/winter semester*	
Degree/Level: *1. (bachelor) degree*	
Prerequisities:	
Grading Policy (Assessment/Evaluation): *ongoing evaluation, active participation in lectures and laboratory practices* *credit evaluated based on final test:* *a) A - 100,00 – 90,00 %* *b) B - 89,99 – 80,00 %* *c) C - 79,99 – 70,00 %* *d) D - 69,99 – 60,00 %* *e) E - 59,99 – 50,00 %* *f) FX - 49,99 and less %*	
Aims and Objectives: *The student has basic knowledge about soil as an abiotic component of the environment, its composition, processes affecting its origin, properties and production capacity. He/She is able to define and interpret in his own words the basic terms used in soil science and knows the basic properties. With the acquired skills he/she is able to obtain information in determining the basic soil parameters. The student is able to define the processes taking place in the creation and development of individual soil types, classify the soil, ability to work with soil maps and obtain and interpret basic information about soil evaluation. He/She is able to know the soil and use it properly in accordance with its functions, in order to prevent the actual degradation of the soil ecosystem.*	
Syllabus/Indicative Content: *1. Soil science - its definition, history, division, definition and composition of soil* *2. Soil organic content - soil humus, its origin, significance and forms* *3. Origin of soil - soil-forming factors, soil weathering, biological and geological circulation of substances* *4. Soil forming factors - factors and conditions, soil forming process and partial processes* *5. Functions and properties of soil - chemical and physical* *6. Biological properties of soil and microbial activity in soil* *7. Soil types, soil horizons - division and their definition, soil classification* *8. Soil types - group of initiated soils, group of melanic soils, group of molar soils* *9. Soil types - group of ilimerized soils, group of brown soils, group of podzolic soils* *10. Soil types - group of hydromorphic soils, group of alluvial soils, group of saline soils* *11. Soil maps - soil evaluation, soil fertility, soil quality and health - soil quality parameters and indicators of vulnerability of ecological functions of soil* *12. Increasing soil fertility - tillage, fertilization, land reclamation measures* *13. Land degradation and sustainable land use - land use in forest and protected area*	
Suggested readings: *ASHMAN, M., PURI, G. 2008. Essential Soil Science: a Clear and Concise Introduction to Soil Science. Wiley-Blackwell, ISBN 978-0-632-04885-4. p. 208* *ALEF, K., NANNIPIERI, P. 1995. Methods in Applied Soil Soil Microbiology nad Biochemistry. Academic Press, ISBN 0-12-513840-7, p. 576.* *Fejér, J., Bobuľská, L. 2015. Pedológia. Prešov: prešovská univerzita v Prešove.*	

BARANČÍKOVÁ, G. – FAZEKAŠOVÁ, D. – MANKO, P. – TORMA, S. 2009. Chémia životného prostredia. Prešov: Prešovská univerzita v Prešove, 2009, 255 s., ISBN 978-80-555-0082-9.
JAVOREKOVÁ, S. – KRÁLIKOVÁ, A. – LABUDA, R. – LABUDOVÁ, S. – MAKOVÁ, J. 2008. Biológia pôdy v agroekosystémoch. Nitra: SPU v Nitre, 2008. 349 s. ISBN 978-80-552-0007-1.

Language of Instruction:
Slovak

Other course information:

Grading history

A	B	C	D	E	FX

Uvádza sa percentuálny podiel hodnotených študentov, ktorí získali po zapísaní predmetu hodnotenie A, B, ... FX. Celkový súčet a, b, c, d, e, f je 100. Ak študent v jednom roku získal FX a po ďalšom zapísaní predmetu hodnotenie D, zohľadnia sa obe jeho hodnotenia.

Lecturer/Instructor:
Ing. Lenka Bobuľská, PhD.

Last update: 9. mája 2022

Approved by: