Title:	**SELECTED ISSUES OF SOIL ZOOLOGY**
Lecture hours: **Laboratory hours:**	15 30
Study period: (summer/winter)	summer
Number of credits:	5
Assessment methods:	Assessment of written test (lecture) and written report (lab project)
Language of instruction:	English
Prerequisites:	High-school level knowledge of zoology and ecology
Course content:	**Lecture:** 1. Soil as a biological system, and its importance in the functioning of terrestrial ecosystems; 2. Physical and biological factors in the soil ecosystem; 3. Circulation of matter and energy within the soil food web; 4. Levels of the forest soil profile; 5. Humus formation processes – basic types of temperate humus: mor, mull and moder formations; 6. General body plan, distribution and importance of selected groups of soil fauna (Protista, Turbellaria, Nematoda, Rotifera, Annelida, Gastropoda, Crustacea, Myriapoda, Arachnida, Insecta). **Laboratory:** 1. Methods of studying diversity and biology of the soil mite fauna; 2. Studying of soil mites behaviour; 3. Population growth experiment under laboratory conditions.
Learning outcomes:	By the end of this course, students should be able to: 1. Characterize the main soil components and explain the importance of soil in the functioning of biosphere; 2. Explain the matter and energy cycle within the soil food web; 3. Describe the differences and similarities between profiles of basic temperate humus types and explain processes of their formation; 4. Identify and characterize the main groups of soil fauna; 5. Describe methods used in the studying of soil acarofauna; 6. Plan, prepare and conduct of mite population experiment, and properly interpret the obtained data; 7. Demonstrate the ability to understand and use information from scientific papers. 8. Demonstrate skill in communication in writing and in oral presentations.
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Literature:	Coleman D.C., Crossley D.A., Hendrix P.F. 2004. Fundamentals of Soil Ecology. Elsevier Academic Press. Krantz G.W., Walter D.E.2009. A Manual of Acarology. 3rd Ed. Texas Tech University Press. Walter D.E., Proctor H.C. 1999. Mites: Ecology, Evolution and Behaviour. CABI.