



Course title	<i>Methodology of field research</i>
Course code	<i>Biol6021</i>
Credit points	4
ECTS creditpoints	6
Total Contact Hours	64
Number of hours for lectures	64

Course developer (s)
Artūrs Škute Nataļja Škute Zinaīda Sondore

Prerequisite knowledge
Biol1007, General ecology

Course abstract: Plant and animal population quantification. Tagging and re-capture methods. Petersen, Schnabel, Jolly-Seber method. Various tests of the hypothesis of equal catchability. Squares and transect methods of accounting. Accounting methods for large areas. Accounting methods for harvested populations. Sample size, continuous and discrete data. Random and sequential data collection. Similarity coefficients and cluster analysis. Diversity index determination methods. Ecological niche breadth and overlap in the ecosystem. Survival tables and age structure of populations.

Compulsory reading:
1. Ford E.D. Scientific Method for Ecological Research. Cambridge University Press; 2000 2. Krebs C.J. Ecological Methodology. Pearson Benjamin Cummings; 2nd edition, 1998, 620 p. 3. Quinn G.P. Keough M.J. Experimental Design and Data Analysis for Biologists. Cambridge University Press; 1st edition 2002
Further reading:
Scheiner S.M., Gurevitch J. Design and Analysis of Ecological Experiments. Oxford University Press; 2nd edition, 2001, 432 p. Sutherland W.J. Ecological Census Techniques : A Handbook, Cambridge University Press; 1996

Periodicals and other sources
Perodika: Acta Biologica Universitatis Daugavpilensis; Oikos; DU abonētās datu bāzes: Cambridge Journals Online;

EBSCO;
Science Direct; Springer Link