

Study programme: Master in biology				
Level: Masted degree				
Course title: Statistical methods and software packages in ecology				
Subject id: DE031				
Lecturer: dr Zagorka Crvenković				
Status: elective				
ECTS: 9				
Requirements: none				
Learning objectives Exploring and mastering the complex statistical procedures used in the natural sciences and especially in protecting the environment.				
Learning outcomes Students will learn specific statistical methods and be able to solve practical problems of environmental protection using these methods with the help of statistical computer programs.				
Syllabus <i>Theoretical instruction</i> Regression analysis - linear, nonlinear, multiple, non-parametric methods, analysis of principal omponenti, cluster analaiza, correspondence analysis. Models that appear in the environment. <i>Practical instruction</i> Regression analysis - linear, nonlinear, multiple, non-parametric methods, analysis of principal omponenti, cluster analaiza, correspondence analysis.				
Literature 1. Lozanov-Crvenković, Z. (2007): Statistika, skripta. PMF, Novi Sad. 2. Shaw, P.A. (2003): Multivariate Statistics for the Environmantal Sciences, Arnold, London.				
Weekly teaching load				
Lectures: 2	Exercises 3	Other forms of teaching:	Student research: 5	Other:
Teaching methodology Lectures are using traditional methods of teaching and computers as an aid to illustrate the content that should be presented. In the exercises and practical training students, in addition to doing the tasks that follow the theoretical teaching, are using computers to solve problems. Used statistical packages are: Excel, Statistica, Mathematica, SPSS.				
Grading method (maximal number of points 100)				
Pre-exam obligations		points	Final exam	points
Colloquia		30	Oral exam	40
Practical work		30		