Study Programme: PhD in Geosciences (Tourism) and PhD in Geosciences (Geography)	
Level: PhD	
Course title: Mathematic and statistical research methods in geography and tourism	
Lecturer(s): dr Olga Hadžić	
Status: elective	
ECTS: 11	
Requirements: None	

Learning objectives

The aim of the course is to enable students to use statistical methods in the areas of interest, as well as the necessary tools to successfully engage in research and introduction of new statistical methods.

Learning outcomes

Students will be able to:

- understand statistical methodology in scientific papers
- create plan of statistical research
- choose appropriate data
- apply complex statistical analysis
- explain obtained results on professional manner

Syllabus

- Sampling
- Hypothesis testing
- Variance analysis
- Correlation
- Regression analysis - linear simple regression, multiple regression, nonlinear regression, model selection
- Factor analysis
- Cluster analysis

Recommended literature

1. Peter A. Rogerson: Statistical Method for Geography, SAGE Publication, 2001.
2. J. P. Marques de Sa: Applied Statistics Using SPSS, STATISTICA, MATLAB and R, Springer, 2007.
3. M. H. Kutner, C.J.Nachtsheim, J. Neter, W. Li: Applied Linear Statistical Model, McGraw-Hill, 2005.
4. Aczel-Sounderpandian: Business Statistics, 7th edition, McGraw-Hill, 2008.

Weekly teaching load	Lectures: 4(60)	Student research:

Teaching methodology

Content is presented through examples from geography and tourism, with active participation of students. Frontal methods of presenting the theoretical basis of statistical analysis follows the work of students in groups and in statistical software packages.

Grading method (maximal number of points 100)

Pre-exam obligations	points	Final exam	points
Seminar paper	50	Oral exam	50