Study programme(s): Applied Mathematics (MB)

Level: master

Course title: Statistical modelling (MB-20)

Lecturer: Zagorka Lozanov-Crvenković

Status: elective

ECTS: 5

Requirements: none

Learning objectives

Acquiring knowledge and skills in advanced statistical methods.

Learning outcomes

Students will learn the theoretical notions in several statistical methods, and will be able to solve the practical problems using statistical software.

Syllabus

Theoretical instruction

Sample theory, regression analysis – linear, nonlinear, multiple. Testing model coefficients. Analysis of residuals. Logistic regression, analysis of time series.

Practical instruction

Sample theory, regression analysis – linear, nonlinear, multiple. Testing model coefficients. Analysis of residuals. Logistic regression, analysis of time series.

Literature

1. Загорка Лозанов-Црвенковић, Статистика, ПМФ, Нови Сад, 2012.
2. R. S. Tsay, Analysis of Financial Time series, Wiley, 2002.
3. Др Љиљана Петровић, Теорија узорака и планирање експеримената, Универзитет у Београду, Економски факултет, 2009
4. Горица Гвоздић, Логистичка регресија, мастер рад, ПМФ, 2011.

Weekly teaching load				Other: 0
Lectures: 2	Exercises: 2	Other forms of teaching: 0	Student research: 0	

Teaching methodology

Lectures are presented using classical teaching methods, supported by beamer presentations. Exercises are used to practice and analyse typical problems and their solutions. The ability of application of theoretical knowledge is checked through independent solving of exercises on two colloquia. The final exam is oral and a student is supposed to demonstrate general understanding of the presented theoretical material.

Grading method (maximum number of points 100)

Pre-exam obligations	**points**	**Final exam**	**points**
Colloquia	50	Oral exam	50